DIALECT USAGE AS A FACTOR IN LANGUAGE PERFORMANCE OF PRIMARY GRADE SCHOOL CHILDREN

By

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Abstract of Dissertation Presented to the Graduate Council
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The purpose of this study was to investigate the relationship between dialect usage and the acquisition of developmental morphologic and phonologic forms across both expressive and receptive language modes. More specifically, this study investigated the relationship between the percentage of dialect used (a derived measure from Anastasiow and Hanes Sentence Repetition Task, 1973) and performance on four language tasks designed to reflect features both developmental and dialectal in nature: articulation, grammatical closure, auditory discrimination, and sentence comprehension. The major research questions asked the following: Is a measure of dialect usage significantly related to articulation, grammatical closure, word-pair discrimination, and sentence comprehension scores, when the variance attributable to cognitive development and language facility is held constant?

The predictor and criterion language tasks were administered to 90 kindergarten, first, and second grade children randomly selected from a Northcentral Florida elementary school with a racial group ratio of 40 percent black and 60 percent white. All children were from rural families of low and lower-middle socioeconomic status backgrounds.

A positive relationship between the percentage of basilect used and performance on dialect items on the expressive and receptive language tasks ($p<.01$) was revealed. A negative relationship between the percentage of basilect used and performance on developmental items on auditory discrimination, sentence comprehension, and grammatical closure tasks ($p<.05$) was revealed. A significant relationship between the percentage of basilect used and acquisition of developmental phonemes was not revealed. Finally, no significant relationships were revealed between the percentage of dialect used and performance on articulation and sentence comprehension when children's language responses reflected pooled standard and basilect correct forms. However, on auditory discrimination and grammatical closure tasks, significant relationships in a negative direction were found between the percentage of basilect used and performance scores reflecting pooled standard and basilect responses.

The question of dialect interference, then, appears to be a localizing phenomenon. The amount of basilect used seemingly interferes with some specific language skills, and not with others.

CHAPTER 1

INTRODUCTION

The education of young children who speak a dialect different from that of the general population of the school they attend has been viewed with increasing concern. This is particularly true at the classroom level where the teacher uses language patterns different than those of the child (Peisach, 1965). Of those nonstandard dialects[1] identified throughout the United States, much has been recently learned concerning the language different child from the rural South. Educational literature has described the Southern rural dialect-speaking child as possessing the following salient features: the child is poor, of lower socioeconomic levels (Osser, Wang, and Zeid, 1969); he is usually black (Hall and Turner, 1974); and he is young, often times just starting school or attending one of the primary grades (Moore, 1971).

Consequently, efforts to study the linguistic makeup of the preschool and primary grade school black disadvantaged child have been numerous.

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[1] Nonstandard dialects are those that deviate from what has been identified as standard, white middle class dialect. The terminology identifying expressive language differences varies according to the research source. Linguistic literature has employed the term basilect to refer to dialect reflecting language patterns of lower socioeconomic areas; educational literature has referred to language differences found among subcultural groups; thus the general terms Black English and Negro nonstandard English have been employed in studies of rural and inner-city blacks. For the purposes of this study, basilect will be used to refer to the dialect exhibited by the dialect different child of the rural South.

The research investigations of Baratz and Povich (1967), Dillard (1967), Labov (1967), Labov and Cohen (1966), and Bailey (1965) have provided an ample listing of the specific phonologic, morphologic, and syntactic distinctions between the language used by white middle class Americans and those used by black low socioeconomic Americans. Adhering to the conclusions proposed by Bailey (1965) -- that although the English spoken by black Americans has basic grammatical patterns resembling those of standard American English, it also has a sophisticated linguistic system which differs in predictable ways -- some of the prominent phonologic and grammatical distinctions manifested in basilect speech have been isolated as follows:

Grammatical Distinctors

1. Omission of *s* in third person singular (He walk for He walks)
2. Omission of possessive (Mary husband for Mary's husband)
3. Omission of past tense (He walk for He walked)
4. Omission of plural *s* (Two coat for Two coats)
5. Omission of copula and duration indicator in third person singular present tense denoting a single act (She walk for She is walking)
6. Use of *be* as a duration indicator in third person singular present tense denoting continuous action in the present (Everyday she be walking for Everyday she walks)

Phonologic Distinctors

7. Voiced plosives tend to devoice in final position (/rɪp/ for /rɪb/)
8. Substitution between nasal phonemes in the final position (/pæm/ for pan; crayom /krɛɪəm/ for crayon)

9. Weakening of final plosives (boo /bu/ for boot; boo /bʊ/ for book)

10. Fricative th /θ/ and /ð/ becomes /d/ in initial position (/dɛn/ for then)
 th becomes /d/ or /v/ in medial position (/fɛdɚ/ for feather); th becomes /v/, /f/, or /d/ in final position (/wɪd/ for with)

11. Glide /r/ does not occur between two vowels (/kæt/ for carrot); Glide /r/ does not occur finally or preceding a consonant (bah /bɤ/ for bar; cot /kɑt/ for cart)

12. In initial consonant clusters the /r/ tends to drop out after th /θ/, /b/, /p/, /k/, and /g/. /str/ becomes /skr/ (pofessor for professor; /skrit/ for street)

13. Glide /l/ does not occur in final position (toe /to/ for toll); Glide /l/ may not occur before /t/, /p/, or /d/ (hep /hɛp/ for help; code /cod/ for cold)

14. Final consonant clusters are simplified (ben /bɛn/ for bend; muss /mʌs/ for must)

However, what is perhaps most relevant to the education of the dialect child are the research quests that study the effect language difference has on learning-- specifically, on the child's ability to learn from an environment that favors a language different than his own. In the case of the young basilect user, of major concern is the effect language difference has on the child's success at developing language, particularly in acquiring those language forms common to both standard and basilect dialect, and his ability to understand the speech of others who use a different dialect.

Purpose of the study

This study was designed to measure the degree to which the process of language acquisition is related to the amount of basilect evident in the expressive language exhibited by primary grade school children.

The purpose of the study was to investigate the relationship of dialect usage and morphologic and phonologic facility at both the expressive and receptive language levels. More specifically, this study investigated the relationship between the percentage of dialect used (a derived measure from Anastasiow and Hanes *Sentence Repetition Task*, 1973) and performance on four language tasks designed to reflect features both developmental and dialectic in nature:
1) articulation; 2) sentence comprehension; 3) auditory discrimination; and 4) grammatical closure.

Moreover, the strength of the relationship between dialect usage and language performance was determined once the variance in performance attributed to cognitive development and general language facility was held constant.

Educational Implications of Dialect Research

Some investigators warn of serious impairments across all levels of communication -- oral, receptive, writing, and reading -- that are endured by the basilect speaking preschool and primary grade school child in his initial encounters with formal education; impairments which are thought to be ultimately responsible for his failure to achieve (Cazden, 1970; Bailey, 1968; Stewart, 1965).

According to Labov (1967) the phonologic differences between white standard dialect and black dialect create a number of homonyms for the black speaker that remain distinct in standard dialect.

Since homonyms are generally distinguishable solely from context, the phonologic differences alone are likely to cause semantic misunderstandings, increasing the difficulty of mutual intelligibility between speakers of different dialects.

The immediate implications of the consequences assumed to result from language differences presume a number of changes that should take place accordingly in schools serving the basilect speaking child. According to Hall and Turner (1974) these include: instructing standard dialect speaking teachers on the critical differences between the two dialects so that they can more effectively communicate with the basilect speaking child; hiring teachers who speak basilect to teach the basilect speaking child; or teaching the basilect speaking child standard dialect as a second language (p. 70).

However, before any approach to dealing with language different children at the classroom level is warranted, careful consideration of those investigations into actual language performance must be taken into account, as well as the findings of investigations into the effect of dialect differences on the acquisition of communication skills as yet to be conducted. More specifically, curriculum change should be based on good research designed to pinpoint and define the limitations with which the basilect child is operating when he begins formal schooling. In this way, the curriculum he encounters will be both sensitive to and consist of realistic expectations for him.

The fairly consistent results of recent research employing sentence repetition as the primary data source may afford educators some direction in providing effective methods of educating the dialect different child; at the very least, the findings should curb some of the impending doom that educators may feel awaits the basilect speaking child in his school experience. In fact, the interpretation of studies conducted by Labov and Cohen (1966), Osser (1967), and Baratz (1969) are quite encouraging.

In all these studies the receptive skills of the basilect speaking child, reflected in his ability to comprehend standard speech, appears to be rather intact and not at all severely impaired. To investigate intelligibility between subcultural groups, sentence repetition tasks were administered to blacks and whites. Labov and Cohen (1966), Osser (1967), and Baratz (1969) independently reported that black children, asked to imitate sentences in standard English, systematically shift the phonology and syntax of the sentence into their own dialect. Moreover, Osser and Baratz found this to occur with the prominent phonologic and grammatical language distinctions isolated by Baratz (1969), Labov (1967), Labov and Cohen (1966), Bailey (1965), and Dillard (1967) listed above.

Moore (1971) examined an example of this phenomenon in order to draw out its implications for intelligibility. Moore commented that "if a boy is asked to imitate 'Ask Alvin if he wants to play basketball,' and responds, 'Ask Alvin do he want to play basketball,' it is clear that he has (a) understood the sentence, and (b) shifted to its semantic and syntactic equivalent in his own language system" (p. 13). Moore concluded that the ability to understand a dialect one does not speak is clearly present in the lower class Negro subjects tested by Osser and Baratz, and the adolescents tested by Labov.

The interpretation of Baratz's study provided by Hall and Turner (1974) is identical to the conclusions drawn by Moore. They report that "the fact that in most cases, the automatic translation of standard dialect into basilect does not change the meaning appreciably might very well argue that the Negro nonstandard speaking child has no problem in comprehending standard English since he automatically translates it into his dialect for processing" (p. 71).

Weener (1969) investigated lower class black and middle class white first grade children's ability to recall words from lists presented by both standard and nonstandard dialect speakers. While white children performed significantly better on lists presented by standard English speakers than lists presented by basilect speakers, no significant differences between recall performance of black children on lists presented by standard and basilect speakers were found. Weener noted from analyses of taped responses that lower class subjects exhibited the phonetic distinctions of their dialect in the recall of the middle class presented lists. According to him, this indicated that

> . . . the child who is regularly exposed to two dialects may develop bidialectic comprehension skills but speak (produce) only one of the two dialects. (p. 199)

In light of these findings, Moore (1971) reported new implications for curriculum planning for the dialect different child.

> Linguistic and psycholinguistic evidence from a variety of situations then seems to have clear implications for a preschool compensatory program. It has been shown that Negro lower class preschool and primary school children demonstrate that they can understand phonological and syntactic structures they don't use themselves. Thus, on the grounds of mutual intelligibility there seems to be no reason for the educator to attempt to teach the child to speak the standard dialect. The evidence indicates that a child who speaks a nonstandard dialect should be exposed to a speech model from the standard dialect, perhaps with special emphasis on discriminating distinctions in the standard dialect different from those in the nonstandard dialect. (p. 14)

Need for Research

Still, it remains difficult to interpret further the dialect research thus far reported. Because curriculum planning is made in accordance with the findings of research, any interpretation must be particularly guarded. The difficulty in arriving at valid interpretations lies within several shortcomings characteristic of the research design and methods employed in most of the investigations dealing with the relationship between dialect and language performance.

1) Racial and socioeconomic status have been confounded with dialect in the major studies. Dialect itself, as a single measure, has not been quantified so that statistical analyses may be appropriately applied. Studies have used populations of low income blacks and middle class whites in their investigation of language performance differences. In this way, low income black speech and middle class

white speech have been automatically operationally defined as non-standard dialect and standard dialect, respectively.

In light of the significant differences found in the phonologic and syntactic characteristics of the language typically spoken by these two groups of school children, research does support the use of these definitions of dialect. Nevertheless, dialect, independent of the race and socioeconomic class membership of the speaker, has not been isolated and operationalized. Therefore, the relationship between actual dialect usage, in terms of varying amounts of non-standard forms exhibited in expressive language, and language performance has not been empirically researched; and, consequently dialect and its effect on language performance has not been empirically researched (Baratz, 1969; Weener, 1969; Osser, Wang, and Zaid, 1969; Osser, 1967; Labov and Cohen, 1966; Ramer and Rees, 1973; Marwit, Marwit, and Boswell, 1972; Gootesman, 1972).

2) Research has typically employed the use of language tasks that focus on either a sole aspect of language performance, i.e. expressive vs. reception; or performance on features that represent dialect distinctions as opposed to features that are developmental in nature. Few studies take full advantage of investigating performance across complementary levels of both reception and expression of language as well as linguistic features that are a reflection of language development in general and those that signal dialect differences.

It is not informative enough to say that there are language differences and that these differences cause difficulties in mutual intelligibility and in learning communication skills; since the research of Labov and Cohen (1966), Osser (1967), and Baratz (1969) has strongly indicated that language differences in production do not necessarily interfere with a child's ability to comprehend the speech of a different dialect speaker. As Moore (1971) aptly pointed out in his discussion of differences in language and differences in intelligibility, "differences between the syntax and phonology of different groups can only _suggest_ differences in actual speech performance and . . . the nature of possible difficulties in intelligibility between speakers." (p. 13)

Research must be designed to tell educators what the differences are and in turn, whether these differences are a problem educationally -- whether they interfere with the child's ability to acquire both receptively and expressively the developmental language forms, for instance, that are shared by the two dialects.

The child's ability to discriminate and produce those phonemes and morphemes that do not reflect dialect distinctions noted in the description of the language patterns exhibited by basilect and standard dialect speakers warrants investigation if the effect of dialect is to be understood. Initial consonant blends and the late-acquired glides /r/, /y/, and /l/, for example, are phonemes that all young native American primary school children struggle to produce in the course of normal development. On the morphological level, the derivational morphemes (_i.e._ noun +_er_, noun +_ist_, verb +_er_); comparative +_er_ and superlative +_est_; and the irregular changes in words that signal differences in meaning (*i.e.* more ∼ most; good ∼ better; foot ∼ feet) are also on the verge of acquisition when the child enters school. Some children regardless of race and social class will have mastered them by the time they begin school, while others, still developing, will acquire the more difficult language forms during the first three years of school (Templin, 1957; Carrow, 1973). It is essential then to ask how dialect affects the acquisition of developmental language forms anomalous to the linguistic rules that are exclusive to and that systematically define each dialect.

3) Finally, most studies in the area of dialect fail to hold constant in their statistical procedures, differences in language performance that may be attributed to cognitive and language development. While variance in performance may indeed be a function of differences in cognitive and language development inherent within the sample population of children studied, differences found in the results of research may be mistaken for dialect interference. Such threats to the internal and external validity of the research design require reduction through statistical control.

CHAPTER 2

REVIEW OF RELATED LITERATURE

The review of the literature summarizes the two major areas--receptive and expressive language performance of basilect speaking children--which provide the background for the present study. In line with the specific aspects of language examined in this study, the literature review is related to the receptive language skills of auditory discrimination and sentence comprehension, and the expressive skills of grammatical closure, articulation of single words, and sentence imitation.

Receptive Language Skills

Auditory Discrimination and Basilect

Early studies investigating differences in auditory discrimination abilities between black and white children and low socioeconomic (low SES) and varying levels of middle and upper socioeconomic status (middle and high SES) children have consistently reported that white middle class children are better discriminators than their black lower class peers; they perform significantly better than do disadvantaged children on tests of auditory discrimination of minimally contrasted word-pairs.

Katz and Deutsch (1963) reported that lower socioeconomic status black elementary school children who were retarded readers learned more slowly and had greater difficulty with auditory stimuli than with visual stimuli. Clark and Richards (1966), working with preschool and primary grade school-aged children, found that disadvantaged children were significantly deficient in auditory discrimination ability when compared with nondisadvantaged children. Oakland (1969) examined relationships between SES and performance on phonemic and nonphonemic auditory discrimination tests. On the Wepman Auditory Discrimination Test the upper-middle-SES group and the upper-lower-SES group performed significantly better than did the lower-lower-SES group. On the nonphonemic tests of auditory discrimination (discriminations between varying pitch and loudness) the upper-middle-SES groups performed significantly better than did the upper-lower- or lower-lower-SES groups on most of the perceptual measures. On no measures was a lower SES group significantly better than the higher SES groups.

Deutsch (1964) attributed the inadequate performance of disadvantaged children on tests of auditory discrimination to their "exposure to a restricted range of experience, to excessive amounts of noise, and to a poor quality and limited quantity of meaningful speech" (from Gootesman, 1972, p. 99), all of which take substantial part in creating a set of environmental circumstances that foster the development of learned inattention. Moreover, having found significant relationships between measures of auditory discrimination and reading achievement, Deutsch postulated that the resulting environment was one insufficient for the development of the auditory skills requisite to reading.

The particular concern over competence in auditory perception, more specifically, in auditory discrimination, is intimated in Deutsch's explanation of the poor discrimination ability in disadvantaged children just stated--namely, the recognized relationship between auditory perception and reading achievement. While research has not evinced auditory discrimination as a causal factor in reading success; there are ample findings to identify auditory discrimination as a significant predictor of reading achievement in terms of the initial decoding skills involved in word recognition.

The results of correlational studies have indicated a positive relationship between auditory discrimination and reading achievement (Bond, 1935; Flynn and Byrne, 1970; Monroe, 1932; and Wepman, 1960, 1961). In a longitudinal study, Thompson (1963) investigated 105 first and second grade children and found auditory discrimination ability highly predictive of reading success. He recommended special training for children who performed poorly on auditory perception tests. Reynolds (1953) studied the relationships of specific reading abilities and auditory characteristics of fourth grade children. He reported that word recognition ability and learning sound elements for corresponding phonograms can be predicted accurately by measures of auditory perception. In another longitudinal study attempting the construction of a predictive index for reading achievement, de Hirsch _et al_. (1966) reported the _Wepman Auditory Discrimination Test_ as a significant co-predictor of reading achievement.

From the evidence supporting differences in auditory discrimination ability across SES and race and the relationship between auditory discrimination ability and achievement in word recognition, two corollaries in terms of curriculum change and consequent research endeavors followed: 1) kindergarten and primary grade school remediation and developmental programs emphasizing special training in auditory discrimination were established for black and/or low socioeconomic children; 2) and research trends were, for the most part, directed toward assessing the effects of such training programs through measures of auditory perception and reading achievement (*i.e.* Linehan, 1958; McNeil and Stone, 1965; Silvaroki and Wheelock, 1966; Feldaman, Schmidt, and Deutsch, 1966; and Oakland, Williams, and Harmer, 1973).

However, some researchers, notwithstanding the findings strongly suggested by earlier investigations, continued investigations into the auditory discrimination differences between children of varying socioeconomic backgrounds and race. These later studies provided findings contrary to the expectations suggested by earlier researchers.

Elenbogen (1972) re-examined the performance of white middle class and black lower class kindergarten children on auditory discrimination tasks. She posed that auditory discrimination as measured by the *Wepman Auditory Discrimination Test*, one of the most widely used instruments for determining deficiencies in auditory discrimination, could be dependent upon several variables in addition to the actual skill itself. Considering the possibility that familiarity with word-pairs on the Wepman test may influence results in favor of those children with more extensive language backgrounds, Elenbogen administered both the Wepman and a modified Wepman consisting of nonsense word-pairs possessing equivalent phonemic makeup to the original to 30 white middle class kindergarten children and 15 black kindergarten children from a Head Start program. Error scores were analyzed. Social class differences in performances disappeared with the use of the nonsense word-pair task. In the discussion of the results of her study, Elenbogen concluded that:

> It would appear that it is more difficult for kindergarteners of middle class backgrounds to discriminate between phonemes when meaning is removed from test items. Their higher performance on the Wepman than on the Distorted (nonsense word-pairs) Wepman seems to indicate that the vocabulary factor is an aid in their performance on the Wepman Auditory Discrimination Test. This does not appear to be true for kindergarteners of lower socioeconomic status. Their nearly identical performance on both tests seems to indicate that both tests may have similar relevance for these subjects. The presence of a vocabulary factor would therefore affect the results of studies showing a relationship between auditory discrimination and socioeconomic status when measured by the Wepman test. (p. 211)

Of considerable interest are three other studies that pursued the question of whether actual differences in auditory discrimination abilities exist between primary grade school children of different race and socioeconomic status. Deutsch (1967), using the Wepman Auditory Discrimination Test in its entirety, reported no significant differences between these groups of children. A second study by Labov (1967) employed a similar but more stringent test on black males. They were asked to discriminate between present and past tense verbs, a distinction which was not maintained in the subject's expressive speech; i.e. messed vs. mess. Labov reported that the black male school-aged child did not exhibit significant difficulties in discriminating phonologic distinctions in standard speech.

Antithetical as the independent findings of Deutsch (1967) and Labov (1967) are with respect to earlier support of existing deficiencies in discrimination abilities across race and SES, their interpretation, nonetheless, poses implications that provoke further evaluation. At the very least, once again, their interpretation should caution educators against generalizing an expectation of deficiency in auditory perception and a poor prognosis for reading achievement to the black lower class child entering school.

A third study by Gootesman (1972), which concerned itself directly with auditory discrimination abilities of basilect speaking children, may offer some explanation to the otherwise paradoxic results between the early and more recent research; and, consequently deserves some discussion.

In accord with the contention that "a person's own auditory discrimination ability cannot be meaningfully evaluated without considering his own speech background" (1972, p. 95), Gootesman noted that previous studies examining differences in auditory discrimination abilities of basilect and standard dialect speaking children employed measures insensitive to differences between the two dialects. Gootesman therefore administered an auditory discrimination test composed of two kinds of word-pairs: 1) those pairs pronounced as homonyms in basilect but as contrasting words in standard English, and 2) those pairs pronounced as contrasting words by all subjects.

Contrast Items	Homonym Items
chop-shop	mow-more
cap-cup	pass-past
mat-mate	law-low
pet-pit	den-then
met-net	not-night
van-fan	guard-god
beg-leg	scream-stream
deed-bead	lock-like
ax-ox	hear-hair
zoo-shoe	ten-tin

Word-pairs were presented by both basilect and standard dialect speakers. Comparison between the performance of three groups of first grade males--black basilect speaking, black standard speaking, and white standard speaking--revealed no significant difference in auditory discrimination of those word-pairs commonly differentiated in the speech of all subjects. However, both standard dialect speaking groups performed significantly higher than the basilect group on those word-pairs pronounced as homonyms in basilect when presented contrastingly by standard dialect speakers. The auditory deficits earlier described as a generalized deficiency symptomatic of the disadvantaged child, appear to become localized in light of Gootesman's findings. Difficulties in the discrimination abilities of the basilect children investigated by Gootesman are pinpointed to those occurrences where homonyms in basilect remain contrasts in standard speech.

In summary, then, the consideration of children's abilities to comprehend dialects they do not speak should not be underestimated. On the phonological level, as manifested in tests of auditory discrimination, the work of Deutsch (1967), Labov (1969), and Elenbogen (1972) strongly suggests that children from different subcultural groups can readily perceive sound distinctions in standard dialect that they do not produce themselves. With regard to the results reported by Gootesman, an appropriate modification would necessarily add that where differences in performance across race and SES are exhibited they appear to be localized to those specific incidences where homonyms occur between basilect and standard dialect.

Sentence Comprehension and Sentence Repetition

Much of what is known about sentence comprehension abilities of basilect speaking children has been either implied from studies of sentence repetition performance or based directly on joint investigations assessing both comprehension and imitation of the same materials. For this reason, the expressive performance of basilect speaking children on tasks of sentence imitation will be included in the discussion of sentence comprehension.

Baratz (1969) tested lower class black and middle class white children on a bidialectic sentence repetition task. Black children were asked to repeat sentences presented in standard dialect; white children, in basilect. Both groups tended to shift systematically the phonology and syntax of the stimuli sentences into their own dialect upon repetition. Moreover, in analyzing the expressive performance of the black group, Baratz found the linguistic shifts during repetition to occur in accordance with the major phonologic and grammatical differences between basilect and standard speech listed in Chapter 1. Hall and Turner have drawn the following implication from Baratz:

> . . . the fact that, in most cases, the automatic translation does not change the meaning (of the sentence presented in standard dialect) appreciably might very well argue that the NNE (Negro nonstandard English) speaking child has no problem in comprehending SE (standard English) since he automatically translates it into his dialect for processing. (p. 71)

The first study that attempted to assess both comprehension and repetition of identical syntactic structures of standard dialect was conducted by Osser, Wang, and Zaid (1969). Comparative performance of middle class white and lower class black preschool children on the researchers' designed instrument was studied. The imitation and comprehension tasks were developed to test the child's control over 13 standard dialect syntactic structures.

For each of the 13 structures, two sentences, one for stimulus presentation for imitation, the other for stimulus presentation for comprehension, were constructed which were syntactically identical but semantically different. Based upon grammatical transformations, the 13 syntactic structures under investigation were as follows:

	Test Sentences Used to Test Imitation and Comprehension *
Passive	The boy is pulled by the girl. The girl is pulled by the boy.
Negative	The boy is not in the chair. The girl is not in the chair.

Inversion	Happily the boy is kicking the ball. Sadly the girl is kicking the ball.
Separation	The boy throws the ball far away. The boy throws the ball up high.
Possessive	The boy is pulling the girl's hair. The girl is pulling the boy's hair.
Reflexive	The boy dries himself with a towel. The girl dries herself with a towel.
Conjunction	The boy climbs and another boy climbs. The boy slides and another boy slides.
Relative	The boy who sits is very fat. The girs who sits is very fat.
Nominalization	Mother does some sweeping with a broom. Father does some painting with a brush.
Subordinate	The girl sees that the boy sits. The boy sees that the girl sits.
Do	The girl does not wear a hat. The boy does not wear a hat.
Object	The boy kicks the ball to her. The girl kicks the ball to him.

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* Critical structures underlined

The child's ability to imitate was assessed by having him repeat the stimulus sentence. The comprehension task required the child to choose a picture that best represented the stimulus sentence from a set of three pictures. The imitation and comprehension tasks were presented separately to the same children in counterbalanced order.

It was found that lower class black children made significantly more errors on the key grammatical structures on the imitation task, "even when known dialect variations were taken into account in rescoring the imitation data (omission of the possessive 's, omission of the third person singular marker s, and the use of nonstandard verb forms)" (p. 1073).

In addition, white children were reported as exhibiting significantly fewer errors on the Peabody Picture Vocabulary Test than black children. Osser *et al.* concluded that "the differences between the groups on both the imitation and comprehension tasks strongly suggest that the NLC [Negro lower class] group's control over some common syntactic structures in standard English is markedly inferior to that of the WMC [white middle class] children" (p. 1073).

In reaction to the findings of Osser, Wang, and Zaid, particularly to the concluding statement above, Moore (1971) wrote:

> The conclusion seems unjustified in the light of a closer examination of the data presented. The average Negro lower class student got 20 of 26 items correct on the comprehension task (as opposed to 24.3 of 26 for the white middle class child) and 21.4 of 26 items correct on the imitation task corrected for dialect (as opposed to 23.9 of 26 for the middle class child). These results are statistically significant, but hardly seem to warrant the conclusion that the control of grammatical structures is "markedly inferior" for the lower class black child.
>
> The relatively small differences observed might be traced to the unfamiliarity of the lower class Negro child to test situations. In any case, it is clear that the Negro lower class children exhibited substantial grammatical control of the structures (about 75% correct on each test). (p. 18)

Hall and Turner (1971) also in response to the findings reported by Osser *et al.* subsequently used the same instrument to compare the performance of lower class black kindergarten subjects. Significant differences between the means of the two groups on comprehension or on imitation of critical structures were not revealed. The only differences found resulted from additional analyses of specific deviations from standard dialect characteristic of black nonstandard dialect (i.e. omission of inflected endings). Black subjects made significantly more deviations than did white subjects. Hall and Turner suggested that the reason Osser et al. found significant differences between black and white subjects on comprehension and imitation of critical structures may have been because of differences between social class rather than race. (Osser studied the performance of lower class blacks and middle class whites, while Hall and Turner controlled for social class by employing lower class blacks and lower class white subjects.)

It is interesting to note that the differences reported in the Osser study between groups on the Peabody Picture Vocabulary Test may have signalled inherent differences in favor of middle class white children in general receptive language facility; consequently affecting task performance. Attempts for adjusting for group biases through statistical methods of covariance, for example, or through design methods of blocking, most certainly appropriate for use in this study, were not indicated. The findings then may have been a reflection of unequal sample population as opposed to distinct differences in specific task performance.

Pursuing further the question of dialect interference with the comprehension and production of sentences, Hall and Turner (1972, 1973) conducted additional studies using a new task instrument. They hypothesized that if speakers of basilect had problems in comprehending standard dialect, it would occur in situations where their dialect characteristically omitted inflections and critical phrase markers when indeed they would be critical in specifying meaning. Test construction consisted of four sentence stimulus items for possessive, past tense, third person, and critical phrase markers (*that*, *where*, *so*, and *before*). The resulting 16 sentences therefore focused on critical inflection and phrase markers whose omission could lead to comprehension problems.

The test sentences used in the Hall and Turner studies were as follows:

Test Sentences for Comprehension and Repetition

Possessive

The girl wears the *clown's* hat.
The boy carries the *cowboy's* boots.
The girl paints the *dog's* house.
The boy takes the *baby's* doll.

Past Tense

The man *chopped* the oak logs.
The boy *jumped* over the puddle.

The boy *kicked* the big ball.

Third Person

The sheep *eats* all day.
The deer *runs* across the road.
The girl *slides* down the hill.
The boy *climbs* up the ladder.

Critical Phrase Marker

The boy sees *that* the girl runs.
Mother puts the cake *where* he can reach it.
The girl swings *before* the boy slides.

For the comprehension task three pictures for each sentence were constructed. The first represented a standard dialect translation of the sentence. The second represented a possible alternative in basilect if indeed the basilect speaker used "their imitation as the basis for comprehension rather than the SE [standard English] sentence they were imitating" (p. 74). The third picture was a foil, including critical aspects of the sentence but not depicting the relationships which could be acquired from either basilect or standard dialect translation. The imitation and comprehension task, unlike Osser's task, was administered at the same time ". . . so that the subject was basing his comprehension either on the SE presentation of the experimenter or on his own NNE imitation. If he was comprehending on the basis of the latter and he imitated in NNE, the omission of the meaning markers should lead to significantly more comprehension errors than speakers of other dialects where these meaning markers are not left out" (p. 74).

In the first study, Hall and Turner (1973) administered this test to four subcultural groups of first and fourth grade children: middle class suburban whites, lower class urban blacks, lower class urban whites, and lower class rural whites. The results of imitation performance revealed the following: the lower class black first grade subjects exhibited significantly more possessive 's omissions than any other group. There were no significant differences, however, among the groups on the number of -ed endings or critical phrase markers omitted. Most first grade subjects omitted the -ed ending and left in the critical phrase markers.

The lower class black fourth grade subjects omitted significantly more possessive 's than rural and suburban sample, as well as significantly more -ed endings than middle class white suburban subjects.

With regard to comprehension, there were no significant differences among any of the first grade groups on any of the four sentence types. For the fourth grade groups, the middle class group performed significantly better than the lower class groups on all of the sentence types, but there were no significant differences among the lower class groups on any of the sentence types. Hall and Turner concluded that there was little evidence that lower class black subjects were at a unique disadvantage in comprehending standard dialect because they spoke or imitated in basilect. Once again, Hall and Turner seem to suggest that difference in performance appears to be a function of social class as opposed to race.

In the second study, Hall and Turner (1972) administered the comprehension-imitation task, with two modifications, to black and white kindergarten children attending two schools of varying socioeconomic class (one school consisted of a majority of children from middle class white families; the other, a majority of lower class white families). The two test modifications constituted the following changes: 1) in order to determine whether children would modify their imitation after making a comprehension choice, subjects were asked to repeat their sentence imitation following each choice response on the comprehension task; 2) critical phrase marker sentences were omitted since all subjects regardless of race and social class in the previous study left them in, in favor of four sentences using the negative not.

Results of the imitation task were similar to the previous study. For the past -ed and the possessive 's, the only significant race effect was that black subjects exhibited more omissions. On the third person singular 's, black middle class subjects reverted to more basilect on the second imitation on the two single cue sentences (the sheep eats all day; the deer runs across the road); lower class blacks exhibited more basilect on the second imitation for both single and double cue sentences (The girl slides down the hill; The boy climbs up the ladder). All subjects produced the word not on both imitations.

There were no significant differences for any of the groups on the comprehension of past -ed and third person singular -s. A significant social class effect on the possessive 's was found: middle class children chose more standard dialect responses on possessive 's than did lower class children. There were significant race and social class effects for the comprehension of negative sentences: the lower class children and black children chose significantly fewer correct responses.

Hall and Turner concluded that "again, there was little evidence in favor of dialect being the cause for unique communication problems for the NNE speaking children" (p. 75).

The Hall and Turner studies have been successful in that they produced empirical evidence to allay the harshness of Osser's concluding statement that "blacks are markedly inferior to whites in their control [comprehension and production] over common syntactic structures." Blacks do not appear to have difficulty in comprehending standard dialect, regardless of the consistency with which they imitate standard dialect sentences in their own dialect. The automatic translation of standard dialect into basilect, is in itself suggestive of the black basilect speaker's ability to comprehend a dialect he does not use.

At this point, it is essential to interject an observation applicable to the studies thus far reviewed. The Hall and Turner studies, as has been the case with Baratz and Osser _et al._, continue to confound race and social class with dialect. Dialect has been operationalized in these studies as a function of either race or social class, or the interaction of the two. Black speech became synonymous with dialect in the Hall and Turner studies so that where no significant race effects were revealed, no eivdence of dialect interference with the comprehension of standard dialect emerged. Lower class black speech was synonymous with dialect in the Baratz and Osser studies. Consequently differences in performance in this group of children in comparison to middle class whites were attributed to dialect. Notwithstanding the importance of the findings reported, verification from research employing dialect as a measured variable is still wanting.

The final three studies to be reviewed relate directly to comprehension abilities of lower class black children. Sentence imitation was not employed.

Peisach (1965) investigated communication difficulties between teachers and black and white first and fifth grade pupils of varying social class backgrounds. The study sample was balanced for both socioeconomic status and race. The Cloze technique with samples of teachers' speech was administered in which the last word of every sentence was omitted for the first grade subjects; and every fifth word, for the fifth grade subjects. Peisach reported social class differences, but no race effects among groups on the ability to supply missing words.

Peisach reported that:

> One of the most interesting results of the present study was the relative absence of Negro-white differences, particularly in light of the relationship of both the task and race to IQ. There was only one significant finding with respect to racial subgroups. Fifth-grade Negro children were less able than white children to replace the identical deletion. However, no differences were found between Negro and white children in ability to replace words that maintained the meaning (context) of the passage or that fulfilled the grammatical requirements of the omission. The results suggest that social class appears to be a more relevant factor than race in affecting performance on the type of language comprehension task represented by the Cloze technique. (p. 478)

Peisach, like Hall and Turner, suggests that language performance is more a function of social class than is race. Moreover, Peisach equated dialect with race, operationalizing dialect accordingly.

Quay (1971 and 1972) translated the Stanford-Binet into basilect. Half of her study's population of lower class black preschool children received the test in standard dialect; the other half, in basilect. A black female administered the test in both circumstances. No significant differences were found between those children receiving the test in standard dialect and those receiving it in basilect. An item analysis revealed no differences between groups on any specific item.

Finally, Weener (1969) tested 24 middle class white and 24 lower class black, southern, rural children in the first grade on their ability to recall words from 12 pairs of lists. The word lists represented varying levels of syntactic continuity (from random word order to approximate sentence word order) and vocabulary sources from both standard dialect and basilect. In addition, basilect and standard dialect speakers were used for word list presentation. No group differences were found in the syntactic or the semantic (vocabulary) arrangement of the word lists. However, differences in speakers affected differences in performance for middle class white children; they recalled words significantly better on lists presented in standard dialect than on lists presented in basilect. Lower class blacks, on the other hand, performed similarly on word lists presented in standard dialect and in basilect. In addition, analyses of children's taped responses indicated that black lower class subjects recalled the standard dialect presented words using their own dialect.

Weener concluded that:

> The child who is regularly exposed to two dialects may develop bidialectic comprehension skills but speak (produce) only one of the two dialects. (p. 89)

The poorer performance for middle class white children in recalling basilect presented words may be attributed to their lack of exposure to basilect.

In summary then, there is much evidence to support the contention that basilect speaking children are able to comprehend the same stimuli that they automatically reproduce--translate--into equivalent basilect forms and semantic substitutions with as little difficulty as their standard dialect speaking peers. Still, the limitation of the studies; namely--the failure to operationalize dialect in terms of a quantifiable variable, guard somewhat the assumptions about dialect drawn from them and should be noted.

Expressive Language Performance

Articulation and Basilect

The phonological distinctions of basilect have been explored by Dillard (1967), Labov (1967), and Bailey (1965). Through their independent efforts, a compendious listing describing the articulatory patterns of basilect speech has been made known (see Introduction, pp. 2 and 3).

In general, studies investigating the articulation of basilect speakers have sought primarily to pinpoint phonological rules by which speech patterns could be explained. Consequently, they have been descriptive in nature. Empirical attempts to investigate the effects of basilect articulation on language acquisition and comprehension, as such, have not been undertaken.

Labov (1967) suggested that the principal effect of basilect articulation lay in the creation of a number of homonyms for the basilect speaker that are distinct contrasts in standard dialect. While, as Moore (1974) argued, homonyms are common to many languages, the appropriate pair member being distinguishable from context, the basilect patterns of articulation may serve, nevertheless, to increase the difficulty in establishing mutual intelligibility between speakers of different dialects. This possibility, however, must be viewed as speculation, in want of empirical corroboration.

Some information germane to the effects of basilect on phoneme acquisition is obtainable from studies of receptive phonology, particularly in relation to auditory discrimination abilities of basilect children. The aforementioned studies of Gootesman (1972), Labov (1967), and Deutsch (1967) indicate that despite the phonologic distinctions between basilect and standard dialect, basilect speaking children tend to discriminate minimal word contrasts as well auditorily as their standard speaking peers, the only exception, as evidenced from the work of Gootesman, being with that of word pairs articulated as homonyms in basilect and contrasts in standard dialect; *i.e.* *law-low*, *then-den*, *stream-scream*.

Weener (1969) found that basilect speaking children recalled words presented in standard dialect as well as they recalled words presented in basilect. He concluded that language different school children were bidialectic in comprehension while their articulation was limited to basilect. The Hall and Turner studies (1972, 1973) concurred with Weener's findings, adding that performance deficits are primarily a function of socioeconomic status as opposed to dialect.

Finally, the work of Houston (1969), although fundamentally a linguistic analyses of child basilect, has presented some interesting theoretical interpretations of basilect phonology hitherto unmentioned, as well as additional phonological rules concerning the use of vowel phonemes.

Houston studied samples of speech of black, rural Florida children, nine to twelve years of age. In her descriptive analyses she noted the following phonologic rules with regard to the use of vowels:[1]

1. $X\ V\ N\ X\ \#\ Y \longrightarrow X\ V\ R\ X\ \#\ Y$, where X may be zero, N = nasal, and V = vowel and may include a vowel plus glide, R = nasal

---

[1] Houston's analysis employed phonemic representation. The rules read left to right--standard dialect to Florida basilect transcription.

loss. (*i.e.* eyn → ey 'ain't,' brawn → braw 'brown'). The rule is optional when Y = V after N #, but is obligatory when Y = C after n #, and when Y is any or no sequence after C #.

2. # C ay (C) → # C a R (C), where C = any consonant. (*i.e.* tray → trah).

3. # C V (h) R # → C ow R, where V is back, non-low, and round. (*i.e.* šuh → šow 'shoe,' floh → flow 'flaw').

4. X_1 V h X_2 V yh X_2, where V = /i/ or /e/, X_1 may be zero, and X_2 is any sequence. (*i.e.* ehg → eyhg 'egg').

5. Xɤš X → X eš X, where X may be zero. (*i.e.* brɤš → breš 'brush,' hɤš → heš 'hush').

X = any phoneme or phoneme sequence positioned in the first syllable
Y = any phoneme or phoneme sequence positioned in the second syllable
# = juncture between syllables or words
C = consonant
V = vowel
N = nasal
R = rule loss or reduction
h = phonemic representation of phonetic unstressed, lax vowel /ɤ/ or /ɨ/ following tense vowels. Particularly in the South, there tends to be a dipthongizing of tense vowels through the phonation of schwa (Houston, 1969, p. 606).

The rules pertaining to single consonants, initial blends, and final consonant clusters did not differ appreciably from those compiled by Labov (1967), Dillard (1967), and Bailey (1965). Houston reported the following syntactic characteristics of the particular population of Florida black children described:

According to Houston (1969), only four major syntactic distinctions between standard and Florida basilect appeared.

1. In *Wh*-questions, basilect does not invert word order or add a *do*-transformation before forming the question; thus, instead of *Why did he say that?* basilect will exhibit *Why he said that?*

2. In negation, forms of have or be followed by a negative become ain't and the double negative in standard usage.

3. Basilect as exhibited in black rural Florida speakers, employs the use of pleonastic pronouns in such constructions as My brother he at school.

4. The use of be in present tense forms are omitted; although exhibited in other tense sequences. Utterances such as Why he be here? did not appear in Houston's data.

This last observation--the omission of be from present tense structures--is inconsistent with the description of syntactic distinctions reported earlier, where be is said to substitute other be forms in present tense. Houston noted that such forms may be characteristic of only certain dialects, or possibly certain registers of basilect (p. 606). In addition, Houston commented that the expressive language exhibited by the children in her study, was "in no way impoverished or pidginized; as one need hardly add, teaching methods such as those employed in English as a foreign language are not appropriate in 'correcting it' " (p. 606).

Of particular interest is the issue raised by Houston concerning the assignment of linguistic differences to either a phonological or to a morpho-syntactical base. For example, Houston cited that,

> . . . educators of CBE [child Black English] speakers often comment on the lack of regular past tense forms or noun plurals which is purportedly a feature of the children's syntax. However, such items may also be treated on the phonological level: to oversimplify, one can say that regular past tense markers do not exist in CBE; or else that final stops which appear in White English do not appear in Black English. (p. 603)

Here lies the controversy. To explain linguistic differences on the bases of morphological and syntactical features, by nature of the units of meaning that they reflect, automatically involves a statement about the speaker's cognitive competence. On the other hand, differences that can be explained away through phonology avoid the more austere matter of meaning systems at work.

> It is preferable, other things being equal, to treat such differences between Black and White English as phonological where possible. We expect variants of a language to differ in surface rather than in base structure; phonological divergence involves a less sweeping claim than syntactic. One would want to see, too, whether a few very general phonological rules might solve not only the problem in question but also other dubious items. (p. 603)

In fact, Houston noted actual past tense in child basilect, appearing in strong verbs, have and be, as well as some regularly marked verbs exhibited in the school register, ". . . where overcorrection reduces the number of simplified consonant clusters and unrealized final consonants" (p. 603). It was her conclusion that basilect and standard speech differ principally in phonology, in light of a very few major morpho-syntactic differences having appeared.

With regard to Houston's conclusion, the argument put forth by Cazden (1970), Bailey (1968), and Stewart (1965)--that linguistic differences primarily at the morphological and syntactical levels of language account for difficulties in achieving communication skills adequate in turn for achieving in school--is considerably weakened.

Grammatical Closure and Basilect

The studies that have investigated the morphology of basilect speaking children have employed a similar methodology to that developed by Berko (1958). Berko devised a test to estimate children's ability to apply morphological rules to new words. To achieve this purpose a grammatical closure task provided a linguistic environment within which the child was called upon to apply inflectional and derivational rules to nonsense words.

Accompanied by cartoon-like picture representations, the plural allomorph /-z/ was tested with the following materials:

This is a wug.

Now there is another one.
There are two of them.
There are two ______.

The plural allomorph in /-z/.

Berko tested four- to seven-year-old white middle class children on plural, progressive, past tense, third person singular and possessive inflections, and agentive, diminutive, comparative and superlative derivational suffixes. While the intent of her study was obviously not to investigate morphological acquisition of disadvantaged, black, or basilect speaking children per se, it has afforded valuable information concerning the acquisition of morphology in standard dialect speaking children; and moreover, an effective procedure for testing their mastery through expressive language. The norms thus provided, and particularly, the procedures employed have had an ostensive effect on later studies focusing on basilect speaking children.

At this point it is in order that the result of the Berko study be summarized:

1. Children in this age range (four to seven) operate with clearly delimited morphological rules. (p. 371)

2. Boys and girls did equally well on task items. (p. 371)

3. In general, first graders did better than preschoolers. Differences were based on frequency of correct answers; both groups showed evidence of knowledge of rule application. (p. 372)

4. Children were able to form plurals requiring allomorphs /-s/ and /-z/, performing best on items where general English phonology determined which of these allomorphs is required (voiceless vs. voiced final consonants, respectively). They could not, however, generalize /-əz/ to new words, although they had real words taking this form of allomorph in their vocabularies. The child's rule for the formation of the plural seems to be: a final sibilant makes a word plural. That is, their rule seems to add /-s/ or /-z/ unless the word ends in /s z tʃ dʒ ʃ ʒ/, in which case they add nothing to make the plural. (pp. 372-3)

5. Children treated the inflections of third person singular and noun possessives in the same way they did the pluralizing of nouns (#4), with one exception: they were more successful in adding /-əz/ to verb forms and possessives than they were in forming noun plurals.

They were asked to produce three nearly identical forms: a man who nazzes; two nizzes; and a niz's hat. On the verb they were 48% right; on the possessive, 49% right; and on the noun plural, only

28% right (the latter being significantly lower in performance , p<.01). While the phonological problem presented by these three forms are identical, the contingent rule for the possessive is better or earlier learned than the same rule for the formation of noun plurals. (p. 373)

6. Of the verb forms tested, the best performance for all children was on the forming of the present progressive /-ing/. Berko attributes early mastery of the present progressive to the fact that 1) children's speech is mostly in the present tense, and that this is a commonly heard form; and 2) that the present progressive inflection consists of only one allomorph--the rules for its application being completely regular. (p. 373)

7. The children's treatment of the past tense parallelled their treatment of plurals, except that they did better in general on the formation of noun plurals. Again, they did well in forming past tense by adding /-t/ and /-d/ appropriately to the phonological environment of the nonsense words; but could not extend the contingent rule to add /-ǝd/ to words ending in /t d/. As in the case for plurals, they treated these forms as if they were already in the past. Also, irregularly formed past tense, where changes are internal as opposed to inflectional (i.e. bing/bang) were treated regularly (i.e. bing/binged). (p. 374)

8. Children were generally unable to apply the adjectival inflections -ier and -iest. Presented with pictures of dogs that were increasingly quirky (increasing the amount of spots) and expected to say that the second was quirkier than the first, and the third was the quirkiest, children either could not answer, or said that "this dog is quirky, too." Only when the examiner supplied the children with the -ier form were some able to then exhibit the -iest inflection. (p. 374)

9. When asked to apply agentive -er, the diminutive of wug, and the adjectival -y derivations, children of this age range almost exclusively exhibited a compounding pattern (i.e. zibbing man or zibman instead of zibber; little wug instead of wuggie; and quirk dog instead of quirky). (p. 374)

Berko concluded the following:

> Children did not treat new words according to idiosyncratic patterns. They did not model new words on patterns that appear infrequently. Where they provided inflectional endings, their best performance was with those forms that are the most regular and have the fewest variants. With the morphemes that have several allomorphs, they could handle forms calling for the most common of those allomorphs long before they could deal with allomorphs that appear in a limited distribution range. (p. 375)

Using a similar design to that of Berko, Marwit, Marwit, and Boswell (1973) compared the acquisition of morphology in second grade black and white upper, middle, and low socioeconomic status. The specific morphological rules under investigation reflected the marked differences between the dialects of the two groups most prevalent in descriptive linguistic research: present tense, where the addition of copula + -ing or the addition of -s represents standard form, and the zero -s morph represents basilect form; possessive, where the addition of 's represents standard form, and the zero 's morph represents basilect form; and time extension, where the addition of -s represents standard form, and the addition of be + -ing represents basilect form.

It was hypothesized that white subjects would exhibit more standard forms and black subjects, more nonstandard (basilect) forms. Test item samples and the hypothesized standard and nonstandard forms are presented below:

1. Present Tense. Stick figure reclining with legs crossed and head on hand, "This is a man who knows how to pid. /pɪd/ What is he doing now? Now he ______________."

standard form   is pidding, pids
basilect form   pid

2. Pluralization. One, then two figures resembling musical notes. "This is a lun. /lʌn/. Now there is another one. There are two of them. There are two ________."

standard form   luns
basilect form   lun

3. Possessive. Cup, lun holding cup. "This is a cup that belongs to the lun. Whose cup is it? It is the _______."

standard form   lun's
basilect form   lun

4. Time Extension. Stick figure positioned for throwing. "This is a man who knows how to mork. /mɔrk/. He does this all the time. All the time he ________."

standard form	is morking, morks
basilect form	be morking

Except on the formation of present tense, white subjects at all levels of comparisons (high, middle, and low socioeconomic status) exhibited more standard forms than did blacks. Combined performance across subject race on each of the socioeconomic levels, showed no significant differences between high and middle class performance for black and white subjects, but differences between the low socioeconomic group in the application of present tense and time extension responses and the middle and high socioeconomic groups were revealed.

It was interesting that Marwit *et al*. reported that none of the black subjects exhibited the hypothesized time extension basilect form *be* + *-ing*. Instead, the most frequent response was the zero copula + the zero *-ing*, *i.e*. "All the time he *mork*," instead of the hypothesized "All the time he *be morking*." The most common response was "All the time he *morking*."

Marwit *et al*. attributed the failure to find significant differences between subject race on the present tense to the poor choice of present tense nonsense syllables *riz* and *zub*, the former ending in a sibilant, the latter beginning with a sibilant, thereby making distinctions between the standard response *risses* and the basilect form *riz* difficult to discriminate "if the response is slurred or spoken rapidly," (p. 223).

Finally the failure of the task in eliciting the hypothesized basilect form for time extension items (be + -ing) was attributed to the following:

> Either the hypothesized form was incorrect or the sentence stem was improperly structured to elicit (the nonstandard form). According to Baratz (1969) and others, "be" followed by the "ing" form of the verb, in and of itself denotes time extension for the Negro child. It is therefore possible that the authors' use of the stem "all the time" obviated the Negro subjects' need to supply "be-ing." To do so would have been redundant and poor grammatical form in any man's language. Just what stimulus, if any, is required to elicit the hypothesized nonstandard form of time extension must remain a question for future investigation. More important for the present hypotheses, however, is the recognition of the fact that even though Negro subjects failed to respond with the hypothesized nonstandard form, they did supply an alternate nonstandard form with significant regularity. (p. 223)

Ramer and Rees (1973) investigated the morphology of inner city black children as a function of age. Six morphological rules, each taking a different form in basilect and standard dialect, were examined through the use of a modification of Berko's test: noun plurals, past tense, third person singular present tense denoting continuous action in the present, third person singular present tense denoting a single act, singular and plural possessive. Five age groups were tested: preschool (n = 12), kindergarten (n = 25), first grade (n= 27), fifth grade (n = 11), and eighth grade (n = 15). To test for third person singular continuous action (equivalent to Berko's "progressive") the test was rewritten to read "What is he doing today? Today he ______ " in order that the subjects not be required to fit their construction into a standard frame, where the copula is provided by the examiner.

The results indicated that for each of the six morphological rules, the trend of response was to move away from the basilect form (zero morph affix) as age increased. The preschoolers' responses were most consistent with basilect; as the subjects' age and education in terms of grade placement increased, morphological responses increasingly reflected mixing of basilect and standard forms. These results were significant ($p < .01$). "As the children grow in age and maturity, they demonstrate increased use of standard American English forms, but in no case in this study did even the oldest group, the eighth graders, use any of these forms to the exclusion of the alternate black English forms. The results show a regular shift for all morphemes away from the use of basilect forms from the kindergarten to the eighth grade levels" (p. 576).

In keeping with Berko's results, the pluralization of noun and the past tense of verbs were affected by the phonological environment of the stem nonsense words: standard forms of the plural -s and the past tense -d, when exhibited, were more frequent with words not ending in sibilants for pluralization and /d/ and /t/ for forming past tense. However, unlike the results found in the Berko study with respect to irregularly formed past tense verbs, the population of children studied by Ramer and Rees did not supply the irregular past tense to the real word ring nor to the nonsense items bing and gling. Subjects exhibited either the basilect form zero morph or the variant form -d. The authors concluded that "the data suggest that these children, unlike those in Berko's study, may not have begun to use such forms even with familiar words ... although the oldest groups in this study (fifth and eighth graders) were considerably older than Berko's oldest group (first graders), they appeared not to have learned constructions like rang on an imitative basis. Therefore, their production of glinged may not merely reflect the lag noted between children's use of morphological processes in familiar words and their application of the same processes to novel words, but may suggest an altogether different developmental process" (p. 574).

Shriner and Miner (1968) investigated the morphological performance on the Berko test of two groups of preschool children: culturally advantaged (children from middle class homes) and culturally disadvantaged (children from lower class homes). The children were matched on mental age. A comparison of the groups' ability to apply morphological rules to new words revealed no significant differences. Both groups increased their ability to apply morphological rules to unfamiliar situations as a function of increased mental age.

In addition, a receptive test on the pluralization of nouns was administered. This test also employed the use of nonsense words and cartoon-like picture representations. Here again, comparisons between group performance revealed no significant differences; and the auditory perception of plurals for both groups increased with mental age. The authors concluded that " . . . perhaps the labels 'culturally advantaged' and 'culturally disadvantaged' are misnomers when relevant variables are controlled" (p. 610). It should be noted that Shriner and Miner failed to mention race difference, if any, between the two populations of the children studied.

Using nonsense words to test morphological competence of lower, middle, and upper class primary grade school children, LaCivita, Kean, and Yamamoto (1966) employed the following task: Children were asked to give the meaning of nonsense words inflected with real morphological suffixes in sentences presented auditorily, *i.e.* "Ungubily the mittler *gimmled*" and "A twener *baikels* meedily." They found no significant differences between the two groups' ability to supply a word that was the same part of speech as the target word. Like the Shriner and Miner study, this investigation was primarily concerned with SES differences; no mention of subject race was provided.

The final three studies employed grammatical closure techniques to test morphology in populations of children of varying SES and race using familiar words in place of nonsense words. The particular task employed was developed by Kirk and McCarthy (1961) and appears as the auditory-vocal automatic (AVA) subtest of the *Illinois Test of Psycholinguistic Abilities* (ITPA).

The major difference between the Berko and the Kirk and McCarthy procedures is the use of nonsense as opposed to real words, respectively, as stimulus stems to which various morphological forms are applied. Dever (1972) discussed the nonsense vs. real word paradigm:

> No data has ever been presented in support of one form or another in predicting errors in children's speech. The nonsense syllable form is the original form developed by Berko. She based her use of nonsense syllables on the hypothesis that a child who correctly inflected a word he had never heard before, such as a nonsense syllable, would be demonstrating his knowledge of the rules for English inflections, but a child who correctly supplied an inflection for a real word stimulus might simply be parroting a form which he has memorized as a whole . . . Real English lexical items as stimuli have been used in the AVA subtest of the *ITPA*. McCarthy

> and Kirk give as their reasons for using real lexical items as follows: " . . . subjects showed a notable tendency in preliminary studies to give meaning to responses; for example, calling 'wugs,' 'rugs.' This reduced the objectivity of the evaluating procedure. Consequently, the nonsense words were abandoned in favor of the familiar ones." (p. 170)

The Berko and the AVA subtest test most of the same morphological forms, with some exceptions:

Berko	AVA Subtest of the ITPA
plurals -s, -z, -ɣz	plurals -s, -z, -ɣz
past tense -d, -t, -ɣd	past tense -d, -t, -ɣd
third person singular -s, -z, -ɣz	third person singular -s, -z, -ɣz
singular possessives 's, 'z, 'ɣz	singular possessives 's, 'z, 'ɣz
plural possessive 'zero affix	plural possessive 'zero affix
comparative of the adjective -ier	comparative -er
superlative of the adjective -iest	superlative -est
progressive -ing	progressive -ing
derived agentive -er	derived agentive -er
derived adjective -y	
diminutive	
compounded or derived words	
	reflexives himself, themselves
	irregular plurals (internal vowel changes)
	irregular past tense (internal vowel changes)
	prepositions (locatives)
	pronoun possessives
	irregular comparatives more better
	irregular superlatives most best
	prepositional phrases at ____ of ____

Ryckman (1966; reviewed in Kirk and Kirk, 1974) compared fifty five-year-old black children from lower class homes on nine subtests of the ITPA, one of which was the AVA (grammatical closure subtest). Black children of middle SES demonstrated significantly superior abilities on all subtests as compared to low SES black children. While the profiles for both groups were qualitatively similar, the low SES children performed poorest on the grammatical closure subtest in comparison to their performance on the remaining subtests; within the middle SES group, children performed poorest on sequential visual-motor and motor encoding tasks. Both groups performed best on sequential auditory-vocal tasks, a task reflecting skills primarily in short-term memory. Ryckman noted that not only did both middle and lower class black children show superiority in auditory short-term memory over their other abilities, but over that of the Caucasian standardization group as well. All other subtest performance of low SES black children fell below standardized norms.

In another study, The Impact of Head Start (1969; reviewed by Kirk and Kirk, 1971), black second grade children were administered ten subtests of the ITPA. Their profile was similar to the five-year-old black children studied by Ryckman. Once again, grammatical closure performance was among their poorest (falling below standardized norms); their best performance being that of auditory sequential memory.

It is essential to note that since the ITPA was standardized on a Caucasian population, interpretation of a low score on the Grammatical Closure Test "should take into account the language to which the child is exposed" (Kirk and McCarthy, 1961, p. 113). Poor performance on this particular subtest then, may reflect dialect differences between the population of children under examination and the norm group; and not necessarily a disability in morphological acquisition.

In a third study, Weaver and Weaver (1967) used the ITPA profile to compare performance of educable mentally retarded children and culturally disadvantaged black children (low SES). Within the low SES black population, scores on the grammatical closure test were the lowest of all other subtests in the profile. The authors discussed their findings in terms of the support lent to Deutsch's hypothesis that the major difference between lower and middle classes appeared to lie in the level of syntactical organization.

> Notable support for this position was found in the relatively poor performance of the culturally deprived subjects on the test of auditory-vocal automatic abilities . . . Scores on this subtest were the lowest of all. Furthermore, common sense dictates the hypothesis that lower class children should do very poorly on a test of what is essentially middle class grammar. (p. 196)

In response to a second hypothesis posed by Deutsch--namely, that lower class children suffer a deficit in attentional mechanisms, Weaver and Weaver noted that the present data failed to support such a position, at least in terms of auditory short-term memory. Performance on the auditory sequential memory test was the third highest; and, as the Ryckman and Head Start reports confirm, well above the mean for the remaining subtests.

To summarize, the results of studies related to the morphological abilities, specifically those manifested in the ability to "grammatically close" sentences, of black children of varying SES backgrounds have afforded the following conclusions: 1) on general tests of morphological abilities, black lower class children perform poorer than white middle class children (Ryckman; Head Start report; Weaver et al.); 2) on morphological tests designed to measure the use of standard and basilect forms, black children demonstrate significantly more basilect forms than do white children of the same socioeconomic level (Marwit et al.); and 3) black children tend to exhibit basilect forms as an inverse function of age and grade placement. Basilect forms tend to decrease as age and grade placement increase (Ramer et al.).

With regard to the effect of socioeconomic status and morphological abilities there are somewhat conflicting results. According to Shriner and Miner and LaCivita et al. differences in socioeconomic status do not result in differences in morphological facility. Marwit et al., however, found differences in performance, as did Ryckman, between low and middle SES groups of children, when controlling for race. Subject race was not delineated in the Shriner and Miner and the LaCivita studies, making their conclusion less than tenable. An apriori measure of dialect was not employed by any of the grammatical closure studies reviewed, thereby defining dialect concomitantly as the single or combined effects of race and SES.

Conclusions from the Related Literature

1. Dialect distinctions are maintained throughout expressive language performance. Those phonologic, morphologic, and syntactic characteristics of basilect are exhibited by dialect users during articulation, grammatical closure, and sentence imitation tasks (Baratz and Povich, 1967; Peisach, 1965; Weener, 1969; Osser, Wang, and Zaid, 1969; Hall and Turner, 1972, 1973).

2. Basilect usage does not seem to interfere with the comprehension of standard speech as a function of increased exposure to standard speech (Weener, 1969; Hall and Turner, 1972, 1973; Quay, 1971; Peisach, 1965).

3. Basilect users tend to discriminate auditorily as well as their standard dialect speaking peers on word-pair stimuli presented in standard dialect, except for those word-pairs pronounced as homonyms in their dialect (Gootesman, 1972; Deutsch, 1967; Labov, 1967).

CHAPTER 3

DESIGN OF THE STUDY

To attain the purposes of this study it was necessary to obtain information of children's performance on four predictive measures -- function word omissions (fo), function word correct (fc), number of reconstructions (rr), and the ratio of dialect usage (rr/trc + re) obtained from a sentence repetition task -- prior to the administration of four criterion tasks: 1) grammatical closure 2) sentence comprehension 3) articulation and 4) auditory discrimination. (See Figures 1 and 2 for design schematics; see Tables 1 and 2 for description of variables.)

Sample

The study consisted of 90 children, randomly selected from three grade levels at Melrose Elementary School, Melrose, Florida: Kindergarten - 30 children: 15 males, 15 females; Grade 1 - 30 children: 15 males, 15 females; Grade 2 - 30 children: 15 males, 15 females. The sample was randomized from a school population with a racial group ratio of 40 percent black and 60 percent white. All children were from rural families of low and lower middle socioeconomic status backgrounds. In cases of hearing loss, visual deficiencies, and severe articulation problems, alternates from the randomized list of students for each grade were substituted.

Research Questions

The results of the literature reported have yielded the following research questions:

DESIGN OF THE STUDY
PREDICTOR VARIABLES

		Sentence Repetition Task*			
		Function Words	Reconstruction Words		
Covariates	Cognitive Development	Function word omission score (fc)	Number of reconstructions (rr)	Dialect Frequency	Predictors
	Language Development	Function word correct score (fc)	Ratio of reconstructions to total standard and error forms (rr/trc + re)	% of Dialect	

Figure 1. Schematic of Predictor Variables *(See Instrumentation)

DESIGN OF THE STUDY
CRITERION TASKS

Language Performance

Expressive

Phonology Articulation Task

Dialect Distinctor Items
Developmental Items

Morphology Grammatical Closure Task

Dialect Distinctor Items
Developmental Items

Receptive

Auditory Discrimination Task Phonology

Dialect Homonyms
Developmental Items

Sentence Comprehension Task Morphology

Dialect Homonyms
Developmental Items

Figure 2. Schematic of Criterion Tasks

TABLE 1

DESCRIPTION OF PREDICTOR AND CRITERION RAW MEASURES

Description	Abbreviation
Predictor Measures	
1. The number of function words correct during sentence repetition responses. This measure is representative of the subject's (S) general language facility.	fc*
2. The number of function words omitted during sentence repetition responses. This measure is representative of S's cognitive development.	fo*
3. The number of reconstructed words into equivalent basilect forms during sentence repetition responses. This measure is representative of the frequency with which S uses basilect.	rr
Criterion Measures - Articulation	
4. The number of correctly articulated homonym responses on dialect items.	HA
5. The number of correctly articulated standard responses on dialect items.	SA
6. The number of correctly articulated responses on developmental items.	DVA
Criterion Measures - Grammatical Closure	
7. The number of correct homonym responses on items reflecting morphologic distinctions of dialect.	HGC
8. The number of correct standard morphologic responses on dialect items.	SGC
9. The number of correct morphologic responses on developmental items.	DVGC

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* fo and fc measures serve as co-variates for the purpose of this study.

TABLE 1 (CONT.)

DESCRIPTION OF PREDICTOR AND CRITERION RAW MEASURES

Description	Abbreviation
Criterion Measures - Sentence Comprehension	
10. The number of correct homonym responses on items reflecting morphologic distinctions of dialect.	HSC
11. The number of correct standard morphologic responses on dialect items.	SSC
12. The number of correct morphologic responses on developmental items.	DVSC
Criterion Measures - Auditory Discrimination	
13. The number of homonym responses on word-pair discriminations reflecting dialect distinctions.	HAD
14. The number of standard responses on word-pair discriminations reflecting dialect distinctions.	SAD
15. The number of correct word-pair discriminations on developmental items.	DVAD

TABLE 2

DESCRIPTION AND FORMULAS FOR PREDICTOR AND CRITERION DERIVED MEASURES

Description	Formula	Abbreviation
Predictor Measures		
16. The percentage of basilect forms S exhibits during sentence repetition responses. This measure is expressed in a ratio of the number of reconstructions (rr) to the total number of reconstructions correctly substituted and/or repeated verbatim (trc) plus those reconstructions that are errors in that they do not represent equivalent meaning in basilect (re).	rr/trc+re	rr/trc+re
Criterion Measures - Articulation		
17. A derived measure reflecting the total number of correct standard responses on both dialect (SA) and developmental items (DVA), plus the total number of correct homonym responses on dialect items (HA).	SA+DVA+HA	CCHA
Criterion Measures - Grammatical Closure		
18. A derived measure reflecting the total number of correct standard responses on both dialect (SGC) and developmental items (DVGC), plus the total number of correct homonym responses on dialect items (HGC).	SGC+DVGC+HGC	CCHGC

TABLE 2 (CONT.)

DESCRIPTION AND FORMULAS FOR PREDICTOR AND CRITERION DERIVED MEASURES

Description	Formula	Abbreviation
Criterion Measures - Sentence Comprehension		
19. A derived measure reflecting the total number of correct standard responses on both dialect (SSC) and developmental items (DVSC).	SSC+DVSC	CCSC
Criterion Measures - Auditory Discrimination		
20. A derived measure reflecting the total number of correct standard responses on both dialect items (SAD) and developmental items (DVAD), plus the total number of homonym responses on dialect items (HAD).	SAD+DVAD+HAD	CCHAD

Research Question I: Is the percentage of dialect used a significant predictor of performance on an articulation task when the combination of basilect and standard responses are reflected in the total performance score and the variance attributable to cognitive development and language facility is held constant?

> Research Question IA. Is the percentage of dialect used a significant predictor of articulation performance on items reflecting phonetic distinctions of dialect when the variance attributable to cognitive development and language facility is held constant?
>
> Research Question IB. Is the percentage of dialect used a significant predictor of articulation performance on items reflecting developmental phoneme acquisition when the variance attributable to cognitive development and language facility is held constant?

Research Question II: Is the percentage of dialect used a significant predictor of performance on a grammatical closure task when the combination of basilect and standard responses are reflected in the total performance score and the variance attributable to cognitive development and language facility is held constant?

> Research Question IIA. Is the percentage of dialect used a significant predictor of grammatical closure performance on items reflecting morphologic distinctions of dialect when the variance attributable to cognitive development and language facility is held constant?
>
> Research Question IIB. Is the percentage of dialect used a significant predictor of grammatical closure performance on items reflecting developmental morphologic acquisition when the variance attributable to cognitive development and language facility is held constant?

Research Question III: Is the percentage of dialect used a significant predictor of performance on a sentence comprehension task when the combination of basilect and standard responses are reflected in the total performance score and the variance attributable to cognitive development and language facility is held constant?

> Research Question IIIA. Is the percentage of dialect used a significant predictor of sentence comprehension performance on items reflecting morphologic distinctions of dialect when the variance attributable to cognitive development and language facility is held constant?

> *Research Question IIIB.* Is the percentage of dialect used a significant predictor of sentence comprehension performance on items reflecting developmental morphologic acquisition when the variance attributable to cognitive development and language facility is held constant?

Research Question IV: Is the percentage of dialect used a significant predictor of performance on an auditory discrimination task when the combination of basilect and standard responses are reflected in the total performance score and the variance attributable to cognitive development and language acquisition is held constant?

> *Research Question IVA.* Is the percentage of dialect used a significant predictor of performance on word-pair discrimination reflecting dialect homonyms when the variance attributable to cognitive development and language acquisition is held constant.

> *Research Question IVB.* Is the percentage of dialect used a significant predictor of performance on word-pair discrimination reflecting developmental contrasts when the variance attributable to cognitive development and language facility is held constant?

Definitions

1. *Dialect usage* - For the purposes of this study, dialect usage refers to the varying amount and/or percentage of nonstandard forms exhibited in expressive language; more specifically, the varying amount of reconstructions (translation into equivalent dialect forms) made during sentence repetition tasks responses. Measures reflecting dialect usage were obtained from the Anastasiow and Hanes *Sentence Repetition Task* (1973). There are two dialect measures yielded from the task: 1) number of words reconstructed (rr); and 2) the percentage of reconstructions attempted (rr/trc + re). (See instrumentation, *Sentence Repetition Task*.)

2. *Basilect* - For the purposes of this study, basilect refers to language patterns that deviate from standard language forms. The basilect speaking child is used interchangeably with the dialect or language different child; and, in place of the nonstandard or Negro

nonstandard speaking child. The term basilect is not meant to reflect racial differences, in that by definition it is not exclusive to black as opposed to white speech; it does reflect, however, language differences between standard and nonstandard English identified in studies that have employed low income blacks and middle class whites as their source of language analyses.

3. Standard dialect - For the purposes of this study, standard dialect refers to the standard English language forms identified in the expressive language exhibited by middle class white Americans. Once again, its definition is not meant to be exclusive to white Americans; but to cite their language patterns as the source of descriptive reference.

4. Sentence comprehension - Sentence comprehension refers to receptive performance on the researcher-designed test of auditory reception of selected morphologic and syntactic features of sentences and phrases. (See Instrumentation, Sentence Comprehension Task).

5. Auditory discrimination - Auditory discrimination refers to receptive performance on a modified Wepman Test of Auditory Discrimination. The auditory discrimination task includes the entire 40-itemed Wepman and an additional 10 word-pairs representing homonyms in basilect and minimal constrasts in standard dialect. (See Instrumentation, Auditory Discrimination Task).

6. Grammatical closure - Grammatical closure refers to expressive performance on a modified grammatical closure subtest from the Illinois Test of Psycholinguistic Abilities (ITPA). Morphologic forms and inflectional endings are tested by a sentence stimuli, accompanied by picture representations, where the last word or phrase is left off,

so that the child may complete (close) the sentence, exhibiting the automatic morphologic forms that he uses in his own connected speech. (*i.e.*, to test for the plural morpheme -*s* , the examiner says, showing the child the appropriate pictures cues, "Here is a dog. Now I have two of them. Now I have two ______").

7. *Articulation* - Articulation refers to expressive performance on the *Photo Articulation Test*. Individual phonemes and consonant clusters are examined for omission, distortion, and substitution in the initial, medial, and final position of words.

8. *Developmental items* - Developmental task items are those that reflect the normal acquisition of expressive and receptive language skills. For the purposes of this study, those phonologic and morphologic developmental task items that were thought *not* to be affected by dialect differences, in that their acquisition was common to both basilect and standard dialect speaking children, were selected.

For example, the child's acquisition of passive voice, direct/indirect object, and irregularly formed comparatives and superlatives (*i.e.*, more ~ most; better ~ best) is more likely a function of how far the child is along developmentally, than the degree to which his language differs from standard dialect.

9. *Dialect distinctors* - Dialect distinctor items refer to those task items reflecting language forms that signal dialect differences. On the phonologic level, the stimulus words, articulated in standard dialect as *this*, *that*, *street*, and *hand* consist of the particular phonemes, initial /ð/, initial /str/, and final /nd/ that are

commonly substituted in basilect for /d/, /skr/, and /-/ (where /-/ indicates omission) respectively. On the morphologic level, dialect distinctor items reflect homonyms in basilect and contrasts in standard dialect. The omission of -ed in past tense creates homonyms in basilect out of present and past tense indicators (they walk/they walk); while the contrast is maintained in standard dialect (they walk/they walked).

Procedures

Children were tested individually. Two examiners participated in the data collection, alternating the administration of tasks so that within each testing session each subject received administration of tasks from both examiners independently; and at the conclusion of the data collection, each examiner had administered an equal number of identical tasks.

Testing sessions were conducted in small conference rooms affording quiet and absence of interruptions. Two children were tested simultaneously according to the following procedure: Each examiner, within his own testing station, tested individually a child on approximately one half of the tasks, requiring 10 to 15 minutes in time. The two children then switched rooms and examiners to receive that last portion of the testing, an additional 10 to 15 minutes. The examiners then alternated task administration for the next two children tested.

Instrumentation

The following tasks were administered:

1. Sentence Repetition Task (SRT)

The complete Anastasiow and Hanes Sentence Repetition Task (Anastasiow and Hanes, 1973) was administered to all subjects. The 28 stimulus sentences were pre-recorded on cassette (white male standard dialect speaker). Child responses were taped and scored according to procedures reported by Anastasiow and Hanes (1973).

Sentence repetitions were scored for function word omissions and function words correct. Function word omission scores (fo) were obtained by summing the number of function words the child omitted across all 28 sentences. Function word correct scores (fc) were obtained by summing the number of function words the child repeated verbatim across all 28 sentences. Previous work with the Sentence Repetition Task indicates that function word omissions are significantly related to cognitive development, while function word correct scores are significantly related to other measures of language facility (Anastasiow and Hanes, 1976).

The measure of dialect usage (rr/trc + re) was derived from children's sentence repetitions in terms of a ratio of the number of valid reconstructions to the sum of the number of valid reconstructions, verbatim responses and errors. Valid reconstructions were defined by Anastasiow and Hanes as basilect substitutions for standard dialect which maintain the meaning of the sentence. In addition, the total number of valid reconstructions (rr) was scored.

Note that both the ratio of dialect usage and the number of words reconstructed are measures of dialect usage.

2. *Articulation (A)*

A modified version of the *Photo Articulation Test* was administered. Subject responses were immediately transcribed in phonemics (IPA style). The articulation task is an expressive language task in which the subject's ability to pronounce certain phonemes in varying positions in the word can be determined. The subject was shown a series of individual photographs and asked to "Tell me what you see."

Stimulus phonemes included represent both developmental and dialectic features. Stimulus phonemes include the following:

Dialect (Baratz, 1972) (HA)

final /k/ stimulus words *book*, *clock*, *blocks*, *fork*
final /s/, /z/ stimulus words, *crackers*, *blocks*, *balloons*
final /g/ stimulus word *flag*
final /t/ stimulus word *skates*
medial /ð/ stimulus word *feathers*
initial /ð/ stimulus word *this*
final /r/ stimulus word *car*
medial /r/ stimulus words *fork*, *carrot*
final /nd/ stimulus words, *hand*, *sand*
final /n/ stimulus words, *spoon*, *crayon*, *balloons*
initial /str/ stimulus word *street*
final /v/ stimulus word *stove*
final /d/ stimulus word *bread*
final /p/ stimulus word *lamp*

According to Baratz, nonstandard dialect responses are reflected in the omission of final phonemes, except in the case of final /n/ for which /m/ is typically substituted; omission of medial /r/; a substitution of /d/ for initial and medial /ð/; and a substitution of /skr/ for initial /str/.

Developmental features (Templin, 1957) (DVA)

initial /kl/ blend stimulus word clock
initial /fl/ blend stimulus word flag
initial /r/ stimulus word radio
initial /sp/ blend stimulus word spoon
initial /st/ blend stimulus words stars, stove
initial /sk/ blend stimulus word skates
initial /bl/ blend stimulus word blocks
initial /kr/ blend stimulus words crackers, crayons
initial /br/ blend stimulus words bread, brush
initial /l/ stimulus word lamp
medial /l/ stimulus word balloons

According to Templin, most of the above phonemes are not usually mastered by children until age seven. These phonemes were selected because they represented the more difficult phonemes in that they are normally developed later in childhood; they were therefore thought to have discriminating power.

3. Grammatical Closure Task (GC)

A modified version of the ITPA grammatical closure subtest was administered. This task is an expressive language task that examines the child's ability to use morphologic forms. Subject responses were recorded live. Stimulus presentation was live. (See Appendix for administration instructions.)

Stimulus items included in the grammatical closure task reflect both developmental and dialectic features. The task tests for the following morphologic units:

Dialect (Ramer and Rees, 1973) (HGC)

plural morphemes -s, -z, -ɤz stimulus items dogs, beds
possessive morphemes -s,-z, -ɤz stimulus items John's, their's
third person present singular single act morphemes -s, -z, -ɤz
    stimulus items barks, opens, plants
third person present progressive singular act morpheme is + -ing
    stimulus items is barking, is opening, is planting

third person singular continuous act morphemes -s, -z, -ɤz
stimulus words *barks*, *opens*, *plants*
past tense (simple) morphemes -d, -t, -ɤd stimulus words *barked*, *opened*, *planted*

According to Ramer and Rees (1973), nonstandard forms include omission of plural, possessive, past tense, and third person present singular act morphemes; the omission of the copula *is* in the present progressive standard word form; and the addition of *be* + -*ing* to express the third person singular continuous act. An example of the latter would be the substitution of *Everyday he be barking* for *Everyday he barks*.

Developmental features (Carrow, 1973) (DVGC)

passive voice; stimulus item *the boy is pushed by the girl*
direct/indirect object; stimulus item *Mamma shows baby the kitty*
derivational inflections -er, -ist; stimulus items *painter*, *artist*
noninflected comparative; stimulus item *more*
noninflected superlative; stimulus items *most*, *best*
inflected comparative; stimulus item *better* -er
noninflected irregular past tense; stimulus items *stole*, *hung*, *wrote*
singular objective case pronoun + self; stimulus item *himself*
plural objective case pronoun + self; stimulus item *themselves*
objective case pronoun singular; stimulus item *her*
objective case pronoun plural; stimulus item *them*

According to Carrow, the above morphologic features are acquired late in the development of child language. Mastery ranges between five to nine years of life. These items were selected to insure discrimination between subjects.

4. *Auditory Discrimination Task (AD)*

A modified version of the Wepman *Test of Auditory Discrimination* was administered. The Wepman is a receptive language task which measures the subject's ability to discriminate between phonemes. Word-pairs were presented on cassette (white female standard dialect speaker). The subject was asked to indicate whether the word-pairs presented were the same or different. Pre-training in the concepts of same and different were carefully employed through the use of items from the Carrow Test of Auditory Comprehension of Language that pinpoint these concepts respectively.

The complete Wepman Test of Auditory Discrimination which, for the purposes of this study, reflects the subject's general development in the discrimination of similar phonemes (DVAD) was administered. In addition, items that may reflect dialect interference in the ability to discriminate sounds were included. The dialectic items (HAD) consisted of 10 word-pairs that represent homonyms in nonstandard dialect while they are readily contrasted in standard dialect. Examples include mow - more; low - law; toe - toll; den - then. (See Appendix A for complete modified Wepman)

5. Sentence Comprehension Task (SC)

The comprehension task required the subject to choose a picture that best represented the stimulus sentence from a set of three pictures. For each set of three pictures, two target responses and one foil was represented. The subject was asked to "Point to the picture that tells the story."

The stimulus sentences were pre-recorded on cassette (white female standard dialect speaker). The subject's responses were immediately recorded by the examiner on answer sheets.

Sentences used in the sentence comprehension task included items that reflect dialectic and developmental morphologic features.

For those items reflecting morphologic distinctions in dialect (HSC), the two stimulus sentences presented for each set of three pictures represented homonyms in basilect and contrasts in standard dialect. For example, in basilect, the sentences Mother's cat is eating and Mother cat is eating are articulated as homonyms. The omission of possessive morpheme -s thus results in both semantically contrasting sentences being uttered as Mother cat (is) eating.

Other basilect homonyms that represent contrasts in standard dialect result from the following stimulus sentences: the children see the cars/the children see the car (homonyms in basilect: the children see the car/the children see the car); the milk spills/the milk spilled (homonyms in basilect: the milk spill/the milk spill); the boy is climbing the ladder/the boy climbed the ladder (homonyms in basilect: the boy climb the ladder/the boy climb the ladder), etc. (See Appendix A for complete list of stimulus items.)

While the basilect speaker may generally comprehend standard speech as well as his standard speaking peers, it was thought that those items that represented homonyms in basilect would be more difficult for him to understand (Labov, 1967).

Developmental items (DVSC) included morphologic contrasts upheld in both basilect and standard dialect, i.e. better ~ best; themselves ~ himself; more ~ most; (noun +er) farmer; (noun +ist) bicyclist; him ~ them, etc.

Reliability of tasks

Reliability for all the criterion tasks was established by applying the Kuder Richardson[1] formula to the language performance data: $r = \left(\frac{n}{n-1}\right)\left(\frac{\alpha^2 - pq}{\alpha 2}\right)$ where n = number of items; α^2 = variance of scores; p = proportion of subjects answering given item correctly and q = 1-p. The developmental and dialect distinctor items within each task were treated separately so that for each task, the reliability of the developmental and the reliability of the dialect portion of the task was measured.

Reliability for the predictor task -- the Anastasiow and Hanes *Sentence Repetition Task* (1973)-- was established through test re-test procedures, and reported by the authors to be .74 (Anastasiow and Hanes, 1973). See Table 3 for criterion reliability coefficients.

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[1] M. W. Tate, *Statistics in Education*. New York: Macmillian, 1955, p. 367.

TABLE 3

RELIABILITY COEFFICIENTS FOR CRITERION TASKS

Task*	Reliability
Auditory Discrimination	
Developmental Items	.88
Dialect Distinctor Items	.76
Sentence Comprehension	
Developmental Items	.72
Dialect Distinctor Items	.70
Grammatical Closure	
Developmental Items	.73
Dialect Distinctor Items	.93

* The articulation task was not subjected to the Kuder-Richardson reliability formula. According to standard clinical procedure for diagnosing articulation performance, articulation responses on both the developmental and dialect distinctor word stimuli were immediately transcribed into phonetics (IPA) by a qualified speech pathologist. For this reason it was felt that the Kuder-Richardson formula was not appropriate for establishing reliability for the articulation task.

Data Analysis

Data were analyzed through the use of partial correlation techniques.

Research Question I was tested by the method of partial correlation. The contribution of rr and rr/trc+re to the variation of CCHA was measured by the partial correlation of rr and rr/trc+re with CCHA, controlling for fo and fc. Student's T-test (two-tailed) was used to test the significance of the correlation coefficient.

Research Question IA was tested by the method of partial correlation. The contribution of rr and rr/trc+re to the variation of HA was measured by the partial correlation of rr and rr/trc+re with HA, controlling for fo and fc. Student's T-test (two-tailed) was used to test the significance of the correlation coefficient.

Research Question IB was tested by the method of partial correlation. The contribution of rr and rr/trc+ re to the variation of DVA was measured by the partial correlation of rr and rr/trc+re with DVA, controlling for fo and fc. Student's T-test (two-tailed) was used to test the significance of the correlation coefficient.

Research Question II was tested by the method of partial correlation. The contribution of rr and rr/trc+re to the variation of CCHGV was measured by the partial correlation of rr and rr/trc+re with CCHGC, controlling for fo and fc. Student's T-test (two-tailed) was used to test the significance of the correlation coefficient.

Research Question IIA was tested by the method of partial correlation. The contribution of rr and rr/trc+re to the variation of HGC was measured by the partial correlation of rr and rr/trc+re with HGC, controlling for fo and fc. Student's T-test (two-tailed) was used to test the significance of the correlation coefficient.

Research Question IIB was tested by the method of partial correlation. The contribution of rr and rr/trc+re to the variation of DVGC was measured by the partial correlation of rr and rr/trc+re with DVGC, controlling for fo and fc. Student's T-test (two-tailed) was used to test the significance of the correlation coefficient.

Research Question III was tested by the method of partial correlation. The contribution of rr and rr/trc+re to the variation of CCHSC was measured by the partial correlation of rr and rr/trc+re with CCHSC, controlling for fo and fc. Student's T-test (two-tailed) was used to test the significance of the correlation coefficient.

Research Question IIIA was tested by the method of partial correlation. The contribution of rr and rr/trc+re to the variation of HSC was measured by the partial correlation of rr and rr/trc+re with HSC, controlling for fo and fc. Student's T-test (two-tailed) was used to test the significance of the correlation coefficient.

Research Question IIIB was tested by the method of partial correlation. The contribution of rr and rr/trc+re to the variation of DVSC was measured by the partial correlation of rr and rr/trc+re with DVSC, controlling for fo and fc. Student's T-test (two-tailed) was used to test the significance of the correlation coefficient.

Research Question IV was tested by the method of partial correlation. The contribution of rr and rr/trc+re to the variation of CCHAD was measured by the partial correlation of rr and rr/trc+re with CCHAD, controlling for fo and fc. Student's T-test (two-tailed) was used to test the significance of the correlation coefficient.

Research Question IVA was tested by the method of partial correlation. The contribution of rr and rr/trc+re to the variation of HAD was measured by the partial correlation of rr and rr/trc+re with HAD, controlling for fo and fc. Student's T-test (two-tailed) was used to test the significance of the correlation coefficient.

Research Question IVB was tested by the method of partial correlation. The contribution of rr and rr/trc+re to the variation of DVAD was measured by the partial correlation of rr and rr/trc+re with DVAD, controlling for fo and fc. Student's T-test (two-tailed) was used to test the significance of the correlation coefficient.

CHAPTER 4

ANALYSIS OF THE DATA

This chapter reports the findings of the statistical evaluation of the relationship between expressive and receptive language performance and two measures of dialect--the frequency with which reconstructions were emitted and the percentage of verbal responses attributed to reconstructions on the sentence repetition task.

In this study two variables, the number of reconstructions (rr) and the percentage of dialect used (rr/trc+re) served as predictors of the following language performance variables: auditory discrimination development (DVAD); auditory discrimination of dialect homonyms (HAD); combined discrimination performance on dialect and developmental tasks (CCHAD)*; articulation development (DVA); articulation of dialect homonyms (HA); combined articulation performance on dialect and developmental tasks (CCHA)*; sentence comprehension development (DVSC); sentence comprehension of dialect homonyms (HSC); combined comprehension performance on dialect and developmental tasks (CCHSC)*; grammatical closure of developmental morphemes (DVGC); grammatical closure of dialect features (HGC); and combined grammatical closure performance of dialect and developmental tasks (CCHGC)*.

In addition, two variables, function word omission (fo) and function word correct (fc) served as covariates.

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* All CCH variables reflect the additive effect of correct standard, dialect, and developmental response totals.

The findings are presented in two parts: (1) the statistical analyses examining the relationship of predictor and covariate measures to factors grade, sex, and race; and (2) the statistical analyses pertaining to each of the research questions. Descriptive statistics for each of the variables under examination are presented in Appendix C.

Statistical Analyses of the Relationship of Predictor and Covariate Measures to Factors Grade, Sex, and Race

The relationship of dialect to factors grade, sex, and race

In addition to the major research questions, a subsequent question was posed concerning the effects of grade, sex, and race on dialect:

Is dialect related to factors grade, sex, and race?

To answer this question two separate 3 factor analyses of variance were performed for variables rr/trc+re and rr. The factors were as follows:

Grade	levels: K, 1, 2
Sex	levels: Male, Female
Race	levels: Black, White

Table 4 summarizes to analysis of variance for variable rr/trc+re.

TABLE 4

ANOVA SUMMARY FOR PREDICTOR VARIABLE rr/trc+re

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	PARTIAL SS	F VALUE	PROB>F
REGRESSION	11	1.02	.093		13.84	.0001
Grade (G)	2			.03	2.72	.07
Sex (S)	1			.02	4.41*	.03
Race (R)	1			.85	126.96*	.0001
GxS	2			.01	1.45	.23
GxR	2			.01	1.23	.29
SxR	1			.00	.11	.73
GxSxR	2			.05	3.76*	.02
ERROR	78	.52	.006			
TOTAL	89	1.57				

* significant F values

For predictor variable rr/trc+re there was a significant 3-way interaction of sex, race, and grade (p=.02), a significant main effect of race (p=.0001), and a significant main effect of sex (p=.03). The mean values for variable rr/trc+re are presented in Table 5.

TABLE 5

MEAN VALUES FOR PREDICTOR VARIABLE rr/trc+re (GxSxR)

	Male			Female		
	K	1	2	K	1	2
W	.31 n=11	.27 n= 8	.17 n= 8	.19 n= 6	.23 n= 8	.21 n= 7
B	.45 n= 4	.47 n= 7	.41 n= 7	.45 n= 9	.39 n= 7	.37 n= 8

Examination of the mean values indicates that white kindergarten females exhibited a smaller percentage of dialect than black kindergarten females (p<.05). In addition, grade 1 and grade 2 white males exhibited a smaller percentage of dialect than grade 1 and grade 2 black males (p<.05). These differences were significant using the Scheffé Multiple Comparison test.

The significant 3-way interaction appeared to be a result of the fact that white males decreased in the percentage of dialect used with grade (a trend which approached significance using the Scheffé test); whereas females in general and black males in particular did not change with grade placement.

Table 6 summarizes the analysis of variance for predictor variable rr.

TABLE 6

ANOVA SUMMARY FOR PREDICTOR VARIABLE rr

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	PARTIAL SS	F VALUES	PROB>F
REGRESSION	11	1965.66	178.69		12.46	.0001
Grade (G)	2			18.79	.65	.52
Sex (S)	1			54.57	3.80	.06
Race (R)	1			1526.20	106.43*	.0001
GxS	2			61.03	2.12	.12
GxR	2			97.40	3.39*	.03
SxR	1			3.72	.25	.61
GxSxR	2			127.59	4.44*	.01
ERROR	78	1118.43	14.33			
TOTAL	89	3084.09				

* significant F values

For variable rr, there was a significant main effect for race (p=.0001), a significant 2-way interaction of grade and race (p=.03), and a significant 3-way interaction of grade, sex, and race (p=.01). The mean values of rr are presented in Table 7.

TABLE 7

MEAN VALUES FOR PREDICTOR VARIABLE rr (GxSxR)

	Male			Female		
	K	1	2	K	1	2
W	14.17 n=11	14.11 n= 8	7.87 n= 8	9.49 n= 6	10.61 n= 8	9.99 n= 7
B	17.75 n= 4	21.15 n= 7	21.43 n= 7	20.67 n= 9	16.85 n= 7	19.27 n= 8

Examination of the mean values for variable rr indicates that all black and white comparisons within grade and sex were significant ($p<.05$), except for kindergarten males. Black subjects exhibited significantly more reconstructions than their white counterparts. These differences were significant using the Scheffé Multiple Comparison test.

There were no significant grade differences for females. White males appeared to decrease significantly in grade 2; however, this difference was not significant using the Scheffé test. There was a small increase from kindergarten to grade 1 and grade 2 for black males. This trend was not statistically significant using the Scheffé test.

The significant 3-way interaction was apparently due to the fact that black males increased in number of reconstructions emitted with grade, white males decreased with grade, and females remained relatively stable with grade.

In summary, both measures of dialect--rr/trc+re and rr--appeared to be similarly related to factors grade, sex, and race. In general, black subjects within and across grades exhibited more dialect than did white subjects. White males tended to decrease in the amount of dialect exhibited with grade, whereas white females did not change appreciably with grade.

In terms of variable rr/trc+re, black males remained stable with respect to grade, although their rr scores tended to increase with grade. In terms of rr/trc+re, black females tended to decrease with respect to grade, although they did not appear to change with grade in the number of reconstructions emitted (rr).

The relationship of fo and fc to factors grade, sex, and race

In order to justify the use of cognitive development (fo) and language facility (fc) measures as covariates for the population of subjects examined in this study, the following question was posed:

> Are variables fo and fc related to the factors grade, sex, and race?

To answer this question, a 3 factor analysis of variance was performed for each variable. The factors were as follows:

Grade	levels: K, 1, 2
Sex	levels: Male, Female
Race	levels: Black, White

A complete factorial model including all second and third order interactions was used. It was inferred that any significant main effect and/or interaction due to fo and fc signalled differences in cognitive development and language facility inherent within the subject sample and therefore required control through covariance procedures.

Table 8 summarizes the analysis of variance for variable fo.

TABLE 8

ANOVA SUMMARY FOR VARIABLE fo

SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	PARTIAL SS	F VALUE	PROB>F
REGRESSION	11	771.04	70.09		3.15	.002
Grade (G)	2			257.39	5.79*	.004
Sex (S)	1			21.29	.95	.33
Race (R)	1			432.88	19.49*	.0001
GxS	2			166.13	3.74*	.02
GxR	1			57.35	1.29	.28
SxR	1			7.83	.35	.55
GxSxR	2			35.57	.80	.54
ERROR	78	1732.07	22.20			
TOTAL	89	2503.11				

* significant F values

For variable fo, a significant main effect for grade (p=.004), a significant main effect for race (p=.0001), and a significant 2-way interaction for factors grade and sex (p=.02) were revealed. The mean values for fo are presented in Table 9 and Table 10.

TABLE 9

MEAN VALUES FOR fo (GxS)

SEX	GRADE		
	K	1	2
M	12.99 n=15	8.74 n=15	5.69 n=15
F	7.95 n=15	9.41 n=15	6.79 n=15

Examination of the mean values for variable fo, indicates that the significant 2-way interaction (GxS) was due to the fact that kindergarten male scores were significantly higher than grade 2 male (p<.05) and grade 2 female (p<.05) scores. These differences were significant using the Scheffé Multiple Comparison test.

TABLE 10

MEAN VALUES FOR fo (factor Race)

Race	
W	B
6.30 n=42	10.80 n=48

White subjects had significantly lower fo scores than black subjects (p<.05), using the Scheffé Multiple Comparison test.

Table 11 summarizes the analysis of variance for variable fc.

TABLE 11

ANOVA SUMMARY FOR VARIABLE fc

· SOURCE	DF	SUM OF SQUARES	MEAN SQUARE	PARTIAL SS	F VALUE	PROB>F
REGRESSION	11	1952.28	177.48		6.23	.0001
Grade (G)	2			714.29	12.53*	.0001
Sex (S)	1			27.27	.95	.33
Race (R)	1			1123.68	39.44*	.0001
GxS	2			161.65	2.83	.06
GxR	2			77.11	1.35	.26
SxR	1			4.85	.17	.68
GxSxR	2			44.49	.78	.53
ERROR	78	2221.76	28.48			
TOTAL	89	4174.04				

* significant F values

For variable fc, significant main effects for grade (p=.0001) and race (p=.0001) were revealed. The mean values for fc are presented in Table 12 and Table 13.

TABLE 12

MEAN VALUES FOR fc (factor Grade)

Grade		
K	1	2
20.03 n=30	19.96 n=30	26.04 n=30

Kindergarten subject scores were significantly lower than grade 2 subjects scores ($p<.05$); grade 1 subject scores were significantly lower than grade 2 subject scores ($p<.05$). These differences were significant using the Scheffé Multiple Comparison test.

TABLE 13

MEAN VALUE FOR fc (factor Race)

Race	
W	B
26.64 n=42	18.38 n=48

White subjects scored significantly higher than black subjects ($p<.05$), using the Scheffé Multiple Comparison test.

It was concluded that the significant interaction of grade and sex and the main effect of race revealed for variable fo indicated a need to control for the variance attributable to this measure in analyses examining the relationship between criterion language performance and dialect for the sample of subjects used in this study. The significant effects of grade and race revealed for variable fc indicated the need to control for the variance attributable to this measure in subsequent analyses as well.

Statistical Analyses of Research Questions

The relationship between predictor and criterion variables was tested by partial correlation techniques, controlling for cognitive development and language facility measures. Table 14 presents the results of the partial correlation analysis.

TABLE 14

PARTIAL CORRELATION COEFFICIENTS FOR DIALECT
AND CRITERION MEASURES CONTROLLING FOR
VARIABLES fo and fc (df=86)

	DVA	SA	HA	CCHA	DVGC	SGC	HGC	CCHGC
rr	-.08	-.52***	.55***	-.06	-.15	-.65***	.59***	-.18*
rr/ trc+re	-.09	-.56***	.59***	-.06	-.18	-.67***	.60***	-.21*
	DVAD	**SAD**	**HAD**	**CCHAD**	**DVSC**	**SSC**	**HSC**	**CCHSC**
rr	-.21*	-.35***	.29**	-.15	-.17	-.15	.17	-.12
rr/ trc+re	-.27**	-.38***	.33***	-.21*	-.21*	-.19*	.21*	-.16

*** significant, p<.001
** significant, p<.01
* significant, p<.05

Research Question I: Is the percentage of dialect used a significant predictor of performance on an articulation task when the combination of standard and basilect responses are reflected in the total performance score and the variance attributable to cognitive development and language facility is held constant?

To answer Research Question I a partial correlation, controlling for fo and fc, was established between rr/trc+re and CCHA and rr and CCHA.

The results indicate that when the performance score on the articulation task reflects the additive effect of all valid standard, basilect, and developmental responses (CCHA), there is no significant relationship between dialect (in terms of the percentage of verbal responses consisting of basilect reconstructions) and articulation performance.

With regard to the secondary measure of dialect[1] as a predictor, the total number of reconstruction emitted (rr), the results did not reveal a significant relationship between rr and CCHA.

While both measures of dialect were related to CCHA in a negative direction (attributable in part to the strong negative relationship between rr and SA and rr/trc+re and SA, where r=-.52, p<.001, df=86, and r=-.55, p<.001, df=86, respectively) the coefficients were not significant. Variables rr and rr/trc+re do not appear then to be significant predictors of articulation performance (CCHA).

Research Question 1A: Is the percentage of dialect used a significant predictor of articulation performance on items reflecting phonetic distinctions of dialect when the variance attributable to cognitive development and language facility is held constant?

To answer Research Question 1A a partial correlation, controlling for fo and fc, was established between rr/trc+re and HA and rr and HA.

The results of the partial correlation indicate that articulation performance on items reflecting phonetic distinctions in basilect (HA) is significantly related to the percentage of dialect used (rr/trc+re), (r=.59, p<.001, df=86). With regard to the secondary measure of dialect, a significant relationship between rr and HA was also revealed (r=.55, p<.001, df=86). Both the number of reconstructions emitted and the percentage of dialect used appear to be significant single predictors of the number of homonym responses on the articulation task. In addition, because all three variables--rr/trc+re, rr, and HA--reflect the subject's automatic choice of basilect forms during expressive language performance, the positive relationship revealed between each dialect measure and the measure of homonym articulation responses had been anticipated.

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[1] The number of basilect reconstructions emitted during sentence repetition performance (rr) has been used as a single measure of dialect in previous studies conducted by Anastasiow and Hanes (1976). The ratio measure of dialect (rr/trc+re) was derived from raw scores for use in this study. Representing a measure of basilect expressed in terms of a ratio of its occurrence to the amount of standard and error responses, rr/trc+re was thought to be a more accurate measure of basilect usage than rr, in relation to total verbal output. For the purposes of this study rr/trc+re is considered the primary measure of dialect; rr, the secondary.

Research Question IB: Is the percentage of dialect used a significant predictor of articulation performance on items reflecting developmental phoneme acquisition when the variance attributable to cognitive development and language acquisition is held constant?

To answer Research Question IB a partial correlation, controlling for fo and fc, was established between rr/trc+re and DVA and rr and DVA.

The results of the partial correlation indicate that articulation performance on items reflecting developmental phoneme acquisition (DVA) is not significantly related to the percentage of dialect used (rr/trc+re). With regard to the secondary measure of dialect, the relationship between rr and DVA also did not reach significance. It appears then, that for population of subjects used in this study, dialect, in terms of the percentage of basilect used and the number of reconstructions emitted, is not predictive of the facility with which phoneme acquisition is achieved.

To summarize, the relationship between dialect and articulation is significant only insofar as it relates to those individual phonemes and phoneme clusters identified as basilect distinctors. Dialect is not predictive of developmental phoneme acquisition--those mutually evident in basilect and standard speech.

Research Question II: Is the percentage of dialect used a significant predictor of performance on a grammatical closure task when the combination of both standard and basilect responses are reflected in the total score and the variance attributable to cognitive development and language facility is held constant?

To answer Research Question II a partial correlation, controlling for fo and fc, was established between rr/trc+re and CCHGC and rr and CCHGC.

The results indicate that when the performance score on the grammatical closure task reflects the additive effects of all valid standard, basilect, and developmental responses (CCHGC), there is a significant relationship between the percentage of dialect used (rr/trc+re) and grammatical closure performance ($r=-.21$, $p<.05$, $df=86$).

In terms of rr as a predictor of grammatical closure performance, the coefficient of rr and CCHGC was not significant. It was concluded then, that the percentage of dialect used is predictive of grammatical closure performance; whereas the number of reconstructions emitted is not.

Apparently, the effects of the increased score values obtained by adding all valid basilect (homonym) responses (HGC) to standard (SGC) and developmental responses (DVGC) was not sufficient to reduce the significance of rr/trc+re as a predictor of grammatical closure performance (CCHGC). The significant coefficient of rr/trc+re and CCHGC, although relatively low, is particularly interesting in light of the nonsignificant coefficient of DVGC and rr/trc+re. All subjects, regardless of the dialect characteristics of their morphologic responses, performed similarly on the developmental items. This provided a reasonable indication that rr/trc+re would remain insignificant as a predictor of CCHGC scores, which were derived to equalize the effects of dialect usage by adding basilect and standard responses to developmental score values.

To explain the significant relationship between rr/trc+re and CCHGC, subject responses to individual task items were examined. In general, subjects who supplied standard morphologic forms on a majority of items tended to respond either exclusively in standard form (*e.g.* a raw score of 13 SGC; 0 HGC; and 0 errors) or primarily in standard form, the remainder of their responses consisting of valid homonym forms (*e.g.* a raw score of 10 SGC; 3 HGC; and 0 errors). Error responses were rare for these subjects.

However, for those subjects who supplied homonym forms primarily, responses were rarely exclusive to basilect. The remainder of their responses consisted of errors (*e.g.* many subjects supplied error forms *theys*, *thems*, and *theysm* /deɪzm/ for the plural possessive item). The combination of SGC and HGC score values was lower for these subjects, consequently.

In addition, high scores on developmental items were most often obtained by those subjects who responded primarily in standard form on dialect items; whereas lower developmental scores tended to be made by subjects who supplied homonym forms on dialect items. It was thought that the relative difference in subject performance in terms of consequent CCHGC score values may have superceded the equalizing effect of adding valid dialect responses to developmental scores; subsequently accounting for the significant relationship revealed between rr/trc+re and CCHGC.

Research Question IIA: Is the percentage of dialect used a significant predictor of grammatical closure performance on items reflecting morphologic distinctions of dialect when the variance attributable to cognitive development and language facility is held constant?

To answer Research Question IIA a partial correlation, controlling for fo and fc, was established between rr/trc+re and HGC and rr and HGC.

The results of the partial correlation indicate that grammatical closure performance on items reflecting morphologic distinctions of basilect (HGC) is significantly related to the percentage of dialect used (rr/trc+re) ($r=.60$, $p<.001$, $df=86$). With regard to the secondary measure of dialect, a significant relationship between rr and HGC was also revealed ($r=.59$, $p<.001$, $df=86$). Both measures of dialect appear to be significant single predictors of basilect morphologic responses on the grammatical closure task. Moreover, since rr, rr/trc+re, and HGC reflect the subject's automatic choice of basilect forms during expressive language performance, the strong positive relationship found between the two predictor variables and the number of homonym responses on the grammatical closure task had been anticipated.

Research Question IIB: Is the percentage of dialect used a significant predictor of grammatical closure performance on items reflecting developmental morphologic acquisition when the variance attributable to cognitive development and language facility is held constant?

To answer Research Question IIB a partial correlation, controlling for fo and fc, was established between rr/trc+re and DVGC and rr and DVGC.

The results of the partial correlation indicate that grammatical closure performance on items reflecting morphologic acquisition (DVGC) is not significantly related to the percentage of dialect used (rr/trc+re). With regard to the secondary measure of dialect, the relationship between rr and DVGC also did not reach significance. It appears then that for the population of subjects used, dialect is not predictive of acquisition of the morphologic forms tested through grammatical closure techniques.

In summary, the relationship between dialect and grammatical closure performance is specific to those morphologic forms signalling previously defined distinctions between standard dialect and basilect; and, according to the results revealed, does not extend to performance on developmental morphologic items.

Research Question III: Is the percentage of dialect used a significant predictor of performance on a sentence comprehension task when the combination of both standard and basilect responses are reflected in the total score and the variance attributable to cognitive development and language facility is held constant?

To answer Research Question III a partial correlation, controlling for fo and fc, was established between rr/trc+re and CCHSC and rr and CCHSC.

The results of the partial correlation indicate that when the performance score on the sentence comprehension task reflects the additive effect of all valid standard, basilect, and developmental responses (CCHSC), there is no significant relationship between the percentage of dialect used and sentence comprehension performance.

With regard to rr as a predictor, a significant relationship between rr and CCHSC was also not revealed. While both measures of dialect were related to CCHSC in a negative direction, the coefficients did not reach significance. It was concluded that dialect is not predictive of comprehension performance on combined dialect- and developmental-based sentences.

Research Question IIIA: Is the percentage of dialect used a significant predictor of sentence comprehension performance on items reflecting morphologic distinctions of dialect when the variance attributable to cognitive development and language facility is held constant?

To answer Research Question IIIA a partial correlation, controlling for fo and fc, was established between rr/trc+re and HSC and rr and HSC.

The results indicate that receptive performance on morphologic distinctions in basilect (HSC) is significantly related to the percentage of dialect used (rr/trc+re) ($r=.21$, $p<.05$, $df=86$). In terms of the number of reconstructions emitted (rr), dialect is not a significant predictor of receptive morphologic distinctions of dialect (HSC).

The failure of the partial correlation coefficient of rr and HSC to reach significance and the lower value of r between rr/trc+re and HSC, relative to the value of r between rr/trc+re and the measures of HGC and HA, ($r=.60$ and $.59$, respectively) are meaningful in terms of the expressive and receptive nature of the tasks from which the predictor and criterion measures were obtained. Whereas a strong relationship between the measures of dialect exhibited in the subject's expressive language and the criterion measures of dialect (HA and HGC) obtained from expressive tasks was revealed, an equally strong relationship was not found between dialect predictors and receptive performance on dialect distinctor items (HSC).

In light of what is known about the receptive and expressive aspects of language acquisition, this finding is clearly explanable. The facility with which the young child comprehends language is generally thought to be markedly superior to his production of equivalent language forms; and, moreover, is believed to precede his production in terms of mastery (Brown, Fraser, and Bellugi, 1963). This phenomenon appears to apply to dialect distinctor discrimination as well. The findings revealed in this study suggest that the dialect speaking child's ability to comprehend grammatical forms demonstrated in his ability to discriminate accurately between sentences produced as homonyms in basilect, is superior to his ability to produce the standard forms in his expressive language.

Research Question IIIB: Is the percentage of dialect used a significant predictor of sentence comprehension performance on items reflecting developmental morphologic acquisition when the variance attributable to cognitive development and language facility is held constant?

To answer Research Question IIIB a partial correlation, controlling for fo and fc, was established between rr/trc+re and DVSC and rr and DVSC.

The results of the partial correlation indicate that the percentage of dialect used (rr/trc+re) is significantly related to receptive performance on sentence comprehension of developmental items (DVSC) ($r=.21$, $p<.05$, $df=86$). A significant relationship was not revealed, however, between the number of reconstructions emitted during sentence repetition (rr) and developmental sentence comprehension (DVSC).

While it was anticipated that dialect would not be related to the comprehension of sentences signalling developmental grammatical forms (Hall and Turner, 1972, 1973), the results of this study indicate that the percentage of dialect used is a significant predictor of developmental sentence comprehension. The K-2 dialect speaking children examined in this study apparently have not as yet acquired bidialectic comprehension skills with respect to developmental morphologic forms.

They do demonstrate, however, evidence of bidialectic comprehension in their ability to discriminate between sentences representing homonyms in basilect and contrasts in standard dialect (i.e. rr was not found to be a significant predictor of HSC).

Research Question IV: Is the percentage of dialect used a significant predictor of performance on an auditory discrimination task when the combination of both standard and basilect responses are reflected in the total score and the variance attributable to cognitive development and language facility is held constant?

To answer Research Question IV a partial correlation, controlling for fo and fc, was established between rr/trc+re and CCHAD and rr and CCHAD.

The results indicate that when the performance score on the auditory discrimination task reflects the additive effect of all valid basilect and standard responses combined with correct developmental responses (CCHAD), there is a significant relationship between the percentage of dialect used (rr/trc+re) and auditory discrimination performance ($r=.21$, $p<.05$, $df=86$).

The number of reconstructions emitted (rr) was not significantly related to CCHAD. Of the two measures of dialect, only rr/trc+re was found to be a significant predictor of total auditory discrimination performance.

Research Question IVA: Is the percentage of dialect used a significant predictor of performance on word-pair discriminations reflecting dialect homonyms when the variance attributable to cognitive development and language facility is held constant?

To answer Research Question IVA a partial correlation, controlling for fo and fc, was established between rr/trc+re and HAD and rr and HAD.

The results of the partial correlation indicate that rr/trc+re is significantly related to auditory discrimination performance on word-pairs reflecting homonyms in basilect and contrasts in standard dialect (HAD) ($r=.33$, $p<.001$, $df=86$).

In terms of the number of reconstructions emitted as a predictor, a significant relationship between rr and HAD was also revealed ($r=.29$, $p<.01$, $df=86$). It was concluded that both the percentage of dialect used and the number of reconstructions emitted are significant single predictors of discrimination of word-pairs reflecting homonyms in basilect.

Research Question IVB: Is the percentage of dialect used a significant predictor of performance on word-pair discriminations reflecting developmental contrasts when the variance attributable to cognitive development and language facility is held constant?

To answer Research Question IVB a partial correlation, controlling for fo and fc, was established between rr/trc+re and DVAD and rr and DVAD.

The results indicate that rr/trc+re is significantly related to discrimination performance on word-pairs reflecting developmental contrasts (DVAD) ($r=.27$, $p<.01$, $df=86$). In terms of the number of reconstructions emitted, a significant relationship between rr and DVAD was also revealed ($r=-.21$, $p<.05$, $df=86$). It was concluded then that both measures of dialect--rr/trc+re and rr--are significant single predictors of discrimination performance on developmental word-pairs (DVAD).

In summary, dialect was found to be a significant predictor of every auditory discrimination variable. Apparently the effect of equalizing auditory discrimination performance by combining basilect and standard responses on homonym items with correct developmental responses (CCHAD) was insufficient to eliminate rr/trc+re as a predictor of total auditory discrimination performance, although the number of reconstructions emitted (rr) was not found to be significantly related to CCHAD. While the results revealed similar findings to those reported by Gootesman (1972) with respect to the relationship between dialect and discrimination between word-pairs produced as homonyms in basilect and contrasts in standard dialect (e.g. low-law, den-then), both rr/trc+re and rr remained significant predictors of discrimination of developmental word-pairs. This latter finding was not anticipated in light of the research of Gootesman (1972), Labov (1967), and Deutsch (1967). The inference drawn from each of their independent research endeavors proposed that dialect does not interfere with the child's ability to discriminate between developmental word-pairs; in fact, basilect speaking children appeared to discriminate as well auditorily as their standard dialect speaking peers.

Summary of Partial Correlation Findings

The results of the partial correlation between predictor and criterion variables, controlling for fo and fc, revealed the following findings:

1) Neither rr/trc+re nor rr was a significant predictor of total articulation performance (CCHA).

2). Both rr/trc+re and rr were found to be significant single predictors of articulation performance on items reflecting phonetic distinctions in basilect (HA). The dialect variables were positively related to HA.

3) Neither rr/trc+re nor rr was a significant predictor of articulation performance on items reflecting developmental phoneme acquisition (DVA).

4) Variable rr/trc+re was found to be a significant single predictor of total performance on the grammatical closure task (CCHGC), whereas rr was not. Variable rr/trc+re was negatively related to CCHGC.

5) Both rr/trc+re and rr were found to be significant single predictors of grammatical closure performance on items reflecting morphologic distinctions of dialect (HGC). The dialect variables were positively related to HGC.

6) Neither rr/trc+re nor rr was a significant predictor of grammatical closure performance on items reflecting developmental morphologic acquisition (DVGC).

7) Neither rr/trc+re nor rr was a significant predictor of total sentence comprehension performance (CCHSC).

8) Variable rr/trc+re was found to be a significant single predictor of sentence comprehension performance on items reflecting morphologic distinctions of dialect (HSC), whereas rr was not. Variable rr/trc+re was positively related to HSC.

9) Variable rr/trc+re was found to be a significant single predictor of sentence comprehension performance on items reflecting developmental morphologic acquisition (DVSC), whereas rr was not. Variable rr/trc+re was negatively related to DVSC.

10) Variable rr/trc+re was found to be a significant single predictor of total auditory discrimination performance (CCHAD), whereas rr was not. Variable rr/trc+re was negatively related to CCHAD.

11) Both rr/trc+re and rr were found to be significant single predictors of auditory discrimination of word-pairs reflecting dialect homonyms (HAD). The dialect variables were positively related to HAD.

12) Both rr/trc+re and rr were found to be significant single predictors of auditory discrimination of word-pairs reflecting developmental contrasts (DVAD). The dialect variables were negatively related to DVAD.

CHAPTER 5

SUMMARY AND CONCLUSIONS

The purpose of this study was to investigate the relationship between dialect usage and the acquisition of developmental morphologic and phonologic forms across both expressive and receptive language modes. More specifically, this study investigated the relationship between the percentage of dialect used and performance on four language tasks designed to reflect features both developmental and dialectic in nature: articulation, grammatical closure, auditory discrimination, and sentence comprehension. The major research questions asked the following: (Is dialect usage a significant predictor of articulation, grammatical closure, word-pair discrimination, and sentence comprehension performance scores, when the variance attributable to cognitive development and language facility is held constant?)?.

The (predictor and criterion language tasks were administered to 90 kindergarten, first, and second grade children randomly selected from a Northcentral Florida elementary school with a racial group ratio of 40 percent black and 60 percent white.) All children were from rural families of low and lower-middle socioeconomic status backgrounds.

Dialect Usage and the acquisition of developmental language forms

The results of the study indicate that on the expressive language level, dialect usage is not predictive of the child's ability to grammatically close sentences by supplying appropriate developmental morphemes. Neither is dialect predictive of the child's ability to acquire those individual phonemes and phoneme clusters that are mutually shared by both basilect and standard dialect.

On the other hand, dialect usage is predictive of receptive performance as demonstrated by the child's ability to comprehend phrases and sentences reflecting developmental morphologic forms. Dialect appears also to be predictive of the child's ability to discriminate auditorily between minimally contrasting word-pairs.

In terms of expressive language performance, the facility with which the basilect speaking child acquires developmental phonemes and morphemes is encouraging. These findings suggest that while the basilect child is acquiring the phonologic and morphologic forms exclusive to his dialect, he is also acquiring the developmental phonemes and morphemes common to both basilect and standard dialect.

At the receptive level, however, the basilect speaking primary grade school child appeared to be at a marked disadvantage in discriminating developmental phonemes in word-pairs of minimal contrasts, as well as the comprehension of developmental morphemes in sentences presented in standard dialect. The apparent influence of dialect usage on receptive processing is in contradiction to the findings of a majority of studies reported in the recent literature (Deutsch, 1967; Labov, 1967; Gootesman, 1972; Elenbogen, 1972; Hall and Turner, 1972, 1973).

The significant negative relationship between dialect usage and auditory discrimination is particularly critical in view of the positive relationship between auditory discrimination and reading achievement (Bond, 1935; deHirsch *et al.*, 1966; Flynn and Bryne, 1970; Monroe, 1932; Wepman, 1960, 1961). Equally important are the educational implications of the significant negative relationship between dialect usage and sentence comprehension. This finding bears two interpretations: (1) the basilect speaking child is deficient in comprehending developmental language forms, and/or (2) he is demonstrating a basic deficiency in comprehending standard dialect. The latter interpretation would contend that the kindergarten through second grade basilect speaking children examined in this study have not as yet acquired the skill of bidialectic comprehension; i.e. the ability to translate standard English into their own dialect for processing.

The translatability phenomenon has been described by Moore (1974), Hall and Turner (1974), and Anastasiow and Hanes (1976) in the basilect speaking child's imitation of sentences presented in standard speech. The basilect user is said to translate when he systematically shifts the phonology and syntax of the stimulus sentence into his own dialect. According to Moore, when a child is asked to imitate 'Ask Alvin if he wants to play basketball,' and responds 'Ask Alvin do he want to play basketball,' it is clear that he has understood the sentence and has shifted to a semantic and syntactic equivalent in his own language system.

Unlike the expressive tasks of sentence imitation, grammatical closure, and articulation, where the response choice is automatic to the speech of the child, the receptive tasks used in this study confined both the stimulus and the child's response solely to a linguistic environment of standard dialect. This may have created a set of conditions too difficult, at least not conducive, for initiating translatability.

While it may be informative enough to conclude that the primary grade language different child is deficient in his reception of isolated developmental language forms, the possibility exists that the underlying problem is one of translatability.

Translatability may provide an explanation for what at first makes the basilect speaking child's performance on developmental language tasks appear anamolous to the "production follows comprehension" theory of language acquisition. If indeed, receptive task performance was a reflection of the child's ability in that situation to respond in a standard dialect context, then task scores may be more an indication of the child's ability to translate the stimulus items into his own dialect for processing than a measure of his reception of developmental forms. It may be true also that articulation and grammatical closure tasks and auditory discrimination and sentence comprehension tasks are not expressive and receptive complements, respectively. Auditory discrimination for example, may represent a higher order skill than the skill reflected in the child's ability to reproduce target phonemes and blends in his automatic response to the identification of familiar pictures.

Finally, the compressed standard deviation and low mean value for grammatical closure performance (mean value=6.66, standard deviation value=2.99) may suggest that in general the grammatical closure task was difficult for all subjects regardless of dialect, thereby explaining the fact that both dialect measures dropped out as significant predictors of grammatical closure performance on developmental items.

In this way, the findings suggest that the basilect child has not acquired the target developmental morphemes at either the receptive or expressive level, whereas the standard dialect child has demonstrated receptive knowledge of target morphemes not evident in his production during expressive task performance. These alternatives, while requiring further investigation, serve to explain the findings within the framework of the basic language acquisition tenets.

Dialect Usage and the Acquisition and Discrimination of Dialect Distinction Forms

The results of the study indicate that on the expressive language level, dialect usage is a significant predictor of grammatical closure performance on dialect distinctor sentences and articulation performance on dialect distinctor words. Receptively, dialect usage is a significant predictor of discrimination between words and sentences pronounced as homonyms in basilect and contrasts in standard dialect. With the exception of sentence comprehension, rr is also a significant predictor of grammatical closure, articulation, and auditory discrimination performance on dialect distinctor items. Furthermore, the dialect measures and criterion task performance on dialectal items are positively related.

In terms of expressive language, the findings support the results reported in recent literature, *i.e.* basilect children exhibit the phonologic and morphologic distinctions of their dialect throughout expressive performance on criterion tasks (Baratz, 1969; Baratz and Povich, 1967; Labov and Cohen, 1966; Marwit *et al.*, 1972; and Ramer and Rees, 1973). Moreover, the fact that dialect distinctions are also maintained in the child's imitation of sentences presented in standard dialect, as evidenced in the significant positive relationship between the dialect variables and HA and HGC, lends additional verification to the validity of the measures of dialect used in this study.

In terms of receptive ability, basilect speaking children demonstrate particular difficulty in discriminating word-pairs representing homonyms in basilect and contrasts in standard dialect. This finding is in accord with those reported by Gootesman (1972). With regard to sentence comprehension, the findings are somewhat more complicated in their interpretation. Using the number of reconstructions emitted (rr) as a predictor, it appears that the basilect speaking child has achieved bidialectic comprehension of dialect distinctors. This finding complements those reported in the Hall and Turner studies (1972, 1973). However, this was not the case using the percentage of dialect used (rr/trc+re) as a predictor. The latter measure of dialect is a significant predictor of the basilect speaking child's performance on discrimination of sentence homonyms ($r=.21$, $p<.05$, $df=86$).

The conflicting results yielded from the two dialect measures provoke an interesting possibility: the findings may be signalling some quantifiable gain in the process of developing bidialectic comprehension. If this is indeed the case, it follows that sentence comprehension of dialect homonyms will be earlier achieved than auditory discrimination of word-pairs consisting of dialect homonyms, where both rr/trc+re and rr are significantly related to HAD. Further investigation would necessitate examining continual performance of the basilect speaking child beyond grade 2 in order to determine when and if bidialectic comprehension of sentence and word-pair homonyms is achieved. Nevertheless, the findings of the study suggest that K-2 basilect speaking children do undergo confusion in their attempt to discriminate between dialect homonyms.

The Relationship of Dialect to Grade, Sex, and Race

In general, black children exhibit more basilect than white children within each grade level. White females across grade exhibit less basilect than white males and black males and females. Basilect usage does not change appreciably for white females with increased grade placement. White males exhibit less basilect than black males and females within each grade. In addition, basilect usage decreases for white males with increased grade placement.

Black kindergarten females exhibit more basilect than black kindergarten males. However, from kindergarten to first grade basilect usage remains stable or slightly decreases with regard to the black female, whereas black males exhibit an increase in basilect usage. Change in basilect usage is not appreciable in black females or males from grade 1 to grade 2.

What is particularly interesting is the examination of dialect across race. Both the black and white K-2 children examined in this study exhibited an ample amount of basilect forms during sentence imitation. While this may be a function of the low socioeconomic status characteristic of the subject sample, the finding nevertheless raises considerable doubts with regard to design procedures whereby dialect difference is operationalized as the speech exhibited by black low SES children. It is apparent from this study that grades K-2 low SES white children do not emit standard forms to the exclusion of basilect forms.

Of course, further investigation warrants the use of middle class white children.

To conclude, it is suggested that investigations using combined factors of SES and race in their attempt to identify two distinct dialect populations better approximate actual dialect difference than do investigations varying the race factor only. At the very least, the findings suggest that terms such as Black English and Negro Nonstandard English are misnomers.

Finally, further investigation of dialect usage beyond grade 2 is needed in order to determine change in dialect over time. This is particularly relevant to the question of implementing curriculum programs aimed at teaching standard English to dialect different children. If indeed basilect, as defined in this study, decreases as a function of increased grade placement, such programs should perhaps yield to natural development. In any event, teaching standard dialect to basilect children must not take precedence over training in the comprehension of standard dialect.

Summary

The question of dialect usage as a factor in the language performance of K-2 children appears to be a localizing phenomenon. The amount of basilect used is predictive of certain language skills and not of others.

The specific findings of this study indicate that basilect speaking children acquire developmental phonemes and morphemes concomitantly with the phonologic and morphologic distinctions exclusive to their dialect. Receptively, however, the basilect child is seemingly penalized for his dialect. He demonstrates difficulty in comprehending developmental morphologic forms in sentences presented in standard dialect as well as in discriminating sentences reflecting homonyms in basilect. In addition, he exhibits difficulty in auditory discrimination of developmental and homonym word-pairs presented in standard dialect. This latter finding is particularly critical in light of the importance of auditory discrimination ability as a predictor of word recognition achievement.

In terms of immediate educational implications, the results of this study support the implementation of language stimulation programs designed specifically to improve the receptive processing of developmental language forms and discrimination of homonym confusions. Direct experience with language, affording the child opportunity to develop within the context of his own dialect at the same time his exposure to standard dialect is increased, may insure the basilect speaking child's success in achieving translatability--the primary requisite to achieving mutual intelligibility between speakers of different dialects.

APPENDIX A

Criterion Tasks

1. Auditory discrimination
2. Sentence comprehension
3. Grammatical closure

AUDITORY DISCRIMINATION TEST[1]

NAME:________ SEX: M F GRADE: K 1 2 3 AGE:____ TEACHER:__________ RACE: B W

	Different	Same		Different	Same
1. gear-beer			26. bar-bar		
2. cad-cab			27. bum-bun		
*3. ten-tin			*28. not-night		
4. led-lad			29. lave-lathe		
5. thief-sheaf			30. shot-shop		
*6. belt-bell			*31. pass-past		
7. sake-shake			32. wedge-wedge		
8. jail-jail			33. such-sock		
9. bail-ball			34. vie-thy		
10. lake-lake			35. rich-rich		
*11. law-low			*36. toe-toll		
12. bead-deed			37. pit-kit		
13. rub-rug			38. guile-dial		
14. wing-wing			39. rash-wrath		
15. gall-goal			40. chew-chew		
*16. scream-stream			*41. den-then		
17. pet-pit			42. fag-sag		
18. lit-lick			43. phase-phase		
19. bug-bud			44. sick-thick		
*20. mow-more			*45. hear-hair		

APPENDIX A Continued

AUDITORY DISCRIMINATION TEST CONTINUED

	Different	Same		Different	Same
21. lass-lath			46. wreath-reef		
22. cope-coke			47. map-nap		
23. pool-tool			48. muss-mush		
24. zone-zone			49. cart-tart		
25. fret-threat			50. cuff-cuss		

* Dialect items

Score Developmental = ____________________
# correct

Score Homonyms = ____________________
* items in same column

Score Standard Contrasts = ____________________
# * items in different column

---

[1] Modified from the Wepman Test of Auditory Discrimination

APPENDIX A Continued

SENTENCE COMPREHENSION TASK

RECEPTIVE RESPONSE FORMS

NAME:______________ SEX:__________ GRADE: K 1 2 3 AGE:_________RACE: B W

Examiner introduces each sentence with "Show me..."

Dialect Homonyms		Standard Contrasts	
1. The children see the car.* The children see the cars	C H N C H N	13. Who hurt themselves?* Who hurt himself?	C I C I
2. The boys play ball. The boy plays ball.	C H N C H N	14. The boy is writing a letter. The boy wrote a letter.*	C I C I
3. Mother's cat is eating.* Mother cat is eating.	C H N C H N	15. Daddy is hanging the picture.* Daddy hung the picture.	C I C I
4. The milk spills. The milk spilled.	C H N C H N	16. the most toys.* more toys.	C I C I
5. The man paints the house.* The man painted the house.	C H N C H N	17. the best candy cane.* the better candy cane.	C I C I
6. The boy is climbing the ladder. The boy climbed the ladder.*	C H N C H N	18. bicyclist	C I
7. The children see the dog. The children see the dogs.*	C H N C H N	19. farmer	C I
8. The girls run home.* The girl runs home.	C H N C H N	20. She shows the girl the boy.* She shows the boy the girl.	C I C I
9. The baby's doll is broken. The baby doll is broken.	C H N C H N	21. Mother gave the ball to them.* Mother gave the ball to him.	C I C I

APPENDIX A Continued

SENTENCE COMPREHENSION TASK CONTINUED

Dialect Homonyms		Standard Contrasts	
10. The girl jumps.*	C H N	22. The boy is chased by the dog.	C I
The girl jumped.	C H N	The dog is chased by the boy.	C I
11. The man lifts the big box.	C H N	Total c	________
The man lifted the big box.*	C H N	Total I	________
12. The boy is opening the gate.*	C H N		
The boy opened the gate.	C H N		

Total C ________
Total H ________
Total N ________
Total H&N ________

Total C & c ________
Total H&N*I ________

Examiner reads * sentence first.

KEY

C = correct homonyms
H = incorrect homonyms
N = incorrect neutral
c = correct standard contrast
I = incorrect standard contrast

APPENDIX A Continued

GRAMMATICAL CLOSURE INSTRUCTIONS[1]

SAY: I am going to show you some pictures. I want you to help me talk about them. I am going to say a little bit about each one and you tell me the rest. Now listen.

1. Here is a bed. Here are two ________.
2. Here is a dog. Here are two ________.
3. This is a dog that likes to bark. What is he doing now? NOW he ______.
4. He did the same thing yesterday. What did he do yesterday? YESTERDAY he ____________.
5. He likes to bark everyday. What does he do everyday? EVERYDAY he ____________.
6. This boy knows how to open the gate. What is he doing now? NOW he ____________.
7. He did the same thing yesterday. What did he do yesterday? YESTERDAY he ____________.
8. He likes to open the gate everyday. What does he do everyday? EVERYDAY he ____________.
9. This bicycle belongs to John. Whose bicycle is it? It is __________.
10. This wagon belongs to them. It is their wagon. Whose wagon is it? It is ____________.
11. This boy is writing something. This is what he __________.
12. This man is painting. He is a ___________.
13. This boy rides a bicycle. He is a bicyclist. This man plays the piano. He is a pianist. This girl makes art. She is an __________.
14. This man likes to plant trees. What is he doing now? NOW he __________.
15. He did the same thing yesterday. What did he do yesterday? YESTERDAY he ____________.
16. He likes to plant trees everyday. What does he do everyday? EVERYDAY he ______________.
17. This child has lots of blocks. This child has even ____________.
18. And this child has the _________.

APPENDIX A Continued

GRAMMATICAL CLOSURE INSTRUCTIONS CONTINUED

[19. This cookie is not very good. This cookie is good. This cookie is even _______________.

[20. And this cookie is the very __________.

21. This man is hanging the picture. Here the picture has been _______.

22. The thief is stealing the jewels. These are the jewels he ________.

23. The boy has two bananas. He gave one away; and kept one for _______.

24. All the children fell down. He hurt himself. She hurt herself. They all hurt ___________.

25. In this picture Mama shows kitty the baby. In this picture, Mama shows ____________.

[26. In this picture, the boy threw the ball to __________.

[27. In this picture, the boy threw the ball to both _________.

28. In this picture the girl is pushed by the boy. In this picture the boy _______________.

[indicates that the stimulus items are represented in the same picture presentation.

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[1] Modified from the ITPA Grammatical Closure Subtest

APPENDIX Continued

GRAMMATICAL CLOSURE TASK

Item #	Response	Standard	Basilect	Error
* 1		beds	bed	
* 2		dogs	dog	
* 3 (Now)		is barking barks	barking bark	
* 4 (Everyday)		barks	be barking	
* 5 (Yesterday)		barked	bark	
* 6 (Now)		is opening opens	opening open	
* 7 (Everyday)		opens	be opening	
* 8 (Yesterday)		opened	open	
* 9		John's	John	
*10		their's	their	
11		wrote		
12		painter		
13		artist		
*14 (Now)		is planting plants	planting plant	

APPENDIX Continued

GRAMMATICAL CLOSURE TASK CONTINUED

Item #	Response	Standard	Basilect	Error
*15 (Everyday)		plants	be planting	
*16 (Yesterday)		planted	plant	
17		more		
18		most		
19		better		
20		best		
21		hung		
22		stole		
23		himself		
24		themselves		
25 (She shows)		baby the kitty		
26		(to) her		
27		(to) them		
28		(is) pushed by the girl		

APPENDIX Continued

GRAMMATICAL CLOSURE TASK CONTINUED

---

* dialect distinctor items ________
C (# standard responses on * items) ________
H (# basilect responses on * items) ________
C (# developmental correct) ________
CCH (total) ________

APPENDIX B

Predictor Task:

Sentence Repetition Test

INSTRUCTIONS FOR THE SENTENCE REPETITION TASK

These machines are tape recorders. Have you ever used a tape recorder before? Would you like to tell this tape recorder your name and how old you are?
(replay the tape so that the child can hear his voice on the tape recorder)

Now we are going to play a game. To help us play this game we will use these machines (point to the two tape recorders). This machine will say some words to you (point to the large tape recorder). What I want you to do is to say exactly what it says, into this machine (point to the small tape recorder). For example, suppose the machine says, "The man is tall," what would you say? (if the child repeats correctly, continue; if not, repeat the example again).

Now, listen to what the machine says and then you say exactly what it says, O.K.?

APPENDIX B Continued

ANASTASIOW-HANES

SENTENCE REPETITION TASK

1. He was tied up.
2. She isn't a good singer.
3. Where can do what he wants?
4. Then he went to the movies by himself.
5. She said, "Whose toys are those?"
6. Did an accident happen while your mother was in the store?
7. Jim, who tried to escape, was caught and then beaten up.
8. Although I want ice cream, I bet I'm not going to get any.
9. The boy was hit by the girl who jumped rope in the street.
10. He runs home quickly after school because he has a bicycle to ride.
11. If you want to see an elephant's baby, then you will have go to a zoo.
12. Joe is good when he feels like it.
13. His mother wouldn't let him go to school because he had no shoes to wear.
14. I think Mary is absent because her mother thought she was sick.
15. The boys were given lots of milk by the ladies in the lunch room.
16. You should either say nice things to your friends or not say anything at all.
17. Joe has to be quiet in class or his teacher won't let him have recess.
18. Joe fell down the stairs while his mother talked to the baby.
19. The teacher will give you a smile when you have finished your work.
20. If your papers are neater then your teacher will be happier.
21. She's got a lollipop which she's going to give me if I'm nice to her.
22. I asked him if he did it and he said he didn't do it.

APPENDIX B Continued

SENTENCE REPETITION TASK CONTINUED

23. What are you doing tomorrow morning after you've eaten breakfast?

24. He couldn't have any ice cream because his sister ate it all up.

25. Although Jimmy felt sick, he came to school.

26. Half of nine is not four, because four and four makes eight.

27. His mother will give him a cookie when he has eaten his supper.

28. That animal is not dead because it is still moving.

SCORING RULES FOR SRT

FUNCTION WORDS

Scored correct if:

1. Verbatim repetition.
2. If stated twice, once correct, the other time wrong.
3. In sentence 8 ("although") bears similarity to ("ah-toe" or "ah-so").

Scored as substitution and correct if:

1. Function word substitution retains full meaning of the sentence.
2. In sentence 13 ("wouldn't") substituted by "didn't" or "doesn't."
3. In sentence 16 ("or not") substituted by "or don't" or "say nothing."
4. In sentence 20 ("neater" and "happier") substituted by "cleaner" and "nicer."
5. In sentence 22 ("didn't") substituted by "not" or similar negative.
6. In sentences 9 and 15 retention of passive structure requiring use of "by" regardless of the noun in the phrase.
7. In sentence 10 ("after school"), after may be substituted by another temporal preposition (for example, "before school").

Scored error if:

1. Response given is incorrect according to the Key and not a valid substitution.
2. Words are distorted beyond intelligibility. This happened if the response simply could not be understood, although it was evident that a sound was made in the correct "response slot."

RECONSTRUCTION WORDS

Scored correct if:

1. Response stated is verbatim.
2. Response stated twice (once verbatim, the other time wrong or reconstructed).

APPENDIX B Continued

SCORING RULES FOR SRT CONTINUED

3. Is expanded from a contraction (for example, "she has got" instead of "she's got" or more formal English, such as "she has;" also in sentence 13 ("had no") to "didn't have any;" and in sentence 21 ("she's going to") to "she is going to."

Scored as an error if the reconstructed word(s) or phrase(s):

1. Is an inappropriate response; not a reconstruction.
2. Is distorted beyond intelligibility.
3. In sentence 7 ("beaten up") was altered to "beat him up."
4. In sentence 9 ("jumped") was altered to "that had the rope."
5. In sentence 13 ("had"), 10 ("has"), 17 ("has, have"), and 19 ("have") was pronounced "ha___."
6. In sentence 11 ("will have") was altered to "won't have" or "don't have."

Scored omission if function or reconstruction word(s) or phrases(s):

1. Is not repeated in the response sentence.
2. If no response was made to the stimulus sentence.
3. If background noise or sound reproduction affected discriminability of the word(s).

APPENDIX B Continued

SCORING KEY FOR FUNCTION WORDS

1. ---
2. ---
3. Where . . . what
4. Then
5. Whose (retention of interrogative)
6. Did (retention of interrogative). . . while
7. who . . . then
8. although
9. by the girl (retention of passive marker) . . . who
10. after school (retention of temporal) . . . because
11. If . . . then
12. when
13. wouldn't (retention of negative) . . . because
14. because
15. by the ladies (retention of passive marker)
16. either . . . or; not (retention of negative conditional)
17. or
18. while
19. when
20. If . . . then; neater . . . happier (retention of comparative)
21. which . . . if
22. if . . . didn't (retention of negative
23. what . . . after
24. couldn't (retention of negative) . . . because

APPENDIX B Continued

SCORING KEY FOR FUNCTION WORDS CONTINUED

25. Although
26. because
27. When
28. because

APPENDIX B Continued

SCORING KEY FOR RECONSTRUCTION WORDS

1.	was tied	got tied
2.	isn't a	ain't no; ain't a
3.	wants	want
4.	movies	movie
5.	said . . . toys	say . . . toy
6.	Did . . . mother	was . . . noun variant
7.	was caught . . . beaten up	got caught . ; got beat up; beat up; got beaten up
8.	I'm not going to	I ain't gonna; I not gonna; I'm not gonna
9.	was hit . . . jumped	got hit . jump; was rope jumping; was jumping rope
10.	runs . . . has	run . . . have
11.	elephant's . . . will have	baby elephant; elephant baby . . . have; got
12.	is . . . feels	be; delete . . feel
13.	had . . . shoes	have, didn't have no . . . shoe
14.	is . . . was	be; delete . . got
15.	boys . . . lots	boy . . . lot; alot
16.	things . . . friends	thing . . friend
17.	has . . . have	got . . get
18.	stirs . . . talked	stair . . talk
19.	will give . . . you have . . . finished	be giving; give . . you (delete have) . . finish
20.	papers . . . will be	paper . . be
21.	She's . . . she's . . . I'm	she got, she has got, or she has . . she going, she is going . . I be; I
22.	if . . . said	did . . . say

APPENDIX B Continued

SCORING KEY FOR RECONSTRUCTION WORDS CONTINUED

23.	are . . . you've eaten	delete; be . . . you eat
24.	ate	eat
25.	felt . . . came	feel . . . come
26.	is not . . . makes	ain't . . . make
27.	will give . . . he has eaten	be giving; give . . . he eat
28.	is not	ain't

APPENDIX C

Descriptive Statistics

DESCRIPTIVE RESULTS

Means and Standard Deviations

Information regarding the characteristics of each of the main variables under examination is presented in Tables 1C through 5C below. Table 1C presents information on covariate and predictor variables; Tables 2C-5C present descriptive information on criterion task variables.

TABLE 1C

MEANS AND STANDARD DEVIATIONS OF COVARIATE AND PREDICTOR VARIABLES

	fc	fo	rr	rr/trc+re
Mean	22.277	8.255	15.233	.327
S.D.	6.848	5.303	5.886	.132
N	(90)	(90)	(90)	(90)

TABLE 2C

MEANS AND STANDARD DEVIATIONS OF ARTICULATION VARIABLES

	DVA	HA	SA	CCHA
Mean	14.544	6.422	23.255	44.100
S.D.	2.544	6.434	6.798	4.064
N	(90)	(90)	(90)	(90)

TABLE 3C

MEANS AND STANDARD DEVIATIONS OF AUDITORY DISCRIMINATION VARIABLES

	DVAD	HAD	SAD	CCHAD
Mean	31.255	2.900	6.988	40.900
S.D.	6.993	2.162	2.226	7.389
N	(90)	(90)	(90)	(90)

TABLE 4C

MEANS AND STANDARD DEVIATIONS OF GRAMMATICAL CLOSURE VARIABLES

	DVGC	HGC	SGC	CCHGC
Mean	6.666	5.055	7.944	19.388
S.D.	2.998	4.662	4.545	3.147
N	(90)	(90)	(90)	(90)

TABLE 5C

MEANS AND STANDARD DEVIATIONS OF SENTENCE COMPREHENSION VARIABLES

	DVSC	HSC	SSC	CCHSC
Mean	13.666	6.955	16.366	36.944
S.D.	3.144	3.321	3.731	3.679
N	(90)	(90)	(90)	(90)

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BIOGRAPHICAL SKETCH

Madlyn A. Levine was born in Far Rockaway, New York, on August 4, 1947. She attended public schools in Miami Beach, Florida, before entering the University of Florida in 1965. Ms. Levine received a B.A. degree in English literature and Speech in 1969, at which time she returned to Miami, Florida, where she worked as a Language Arts teacher in a secondary school.

In 1971, Ms. Levine began graduate study at the University of Florida. She received an M.A. degree in Speech Pathology in 1973, and a Ph.D. in Curriculum and Instruction, with a specialization in Reading and Language Acquisition, in 1976.

During her advanced training Ms. Levine was employed as a speech therapist in Putnam County, Florida (1973-1974), and a Graduate Teaching Assistant in the Department of Childhood Education and the Department of Speech (1974-1976).

Her graduate work in the combined areas of Speech and Reading exercised her academic pursuit to integrate the study of the language and reading processes.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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